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DEADSPACE



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Syracuse University School of Architecture
Fall 2012



If it is

u t o p i a n

to want to

s u r v i v e

it must be

r e a l i s t i c

to be

D E A D

C O N T

E N T S

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Deadspace is a condition:

any architecture, through

time,

violence,

use,

wear,

becomes a ruin or loses its purpose,
and is replaced.

In this

**in-between
state**

**deadspace
emerges.**

ABSTRACT:

In our youth-obsessed, relentlessly cheerful culture, spaces related to the taboo of death fall into both heterotopological categories: those of crisis and of deviance.

Heterotopias of crisis

privileged / sacred / forbidden
places for the individual in crisis
with society

Heterotopias of deviance

occupied by individuals whose behavior
deviates from the current standard or
average

Deadspace might seem like it would refer to a sequestered location, but it is more of an ephemeral idea. The universality of death as a condition of life means that deadspace exists across all cultures and even transcends human creation. Deadspaces can be for no one and for everyone, or they can be open only to particular constituencies. A cemetery may be open to everyone, or it may be accessible only to those who practice a certain faith; it may even be a place so feared that no one is to be there except for the dead. A nuclear contamination site, with land so dead it causes death, is closed to all. An extinct volcano, on the other hand, is a deadspace which has lost its volatility, and becomes a space again possible to use.

So what are the types of deadspace?

1 Heterotopia: real and effective spaces which are outlined in the very institution of society, but which constitute a sort of counter-arrangement... in which all the real arrangements...that can be found in society are at one and the same time represented, challenged, and overturned: a sort of place that lies outside all places and yet is actually localizable." Foucault, 352

one can name typologies of deadspace:

Battlefield



Bunker



Burial Mound



Cairn



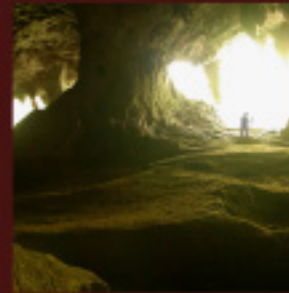
Catacombs



Catafalque



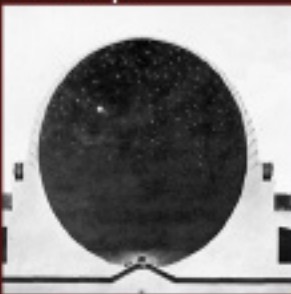
Cave



Cemetery



Cenotaph



Cholten



Church/Mosque/Temple



Cinerarium



Columbarium



Coral Reef



Crematorium



Crematory Hut



Crypt



Death Camp



Extinct Volcano



Funeral Home



Graveyard



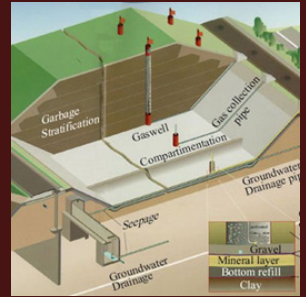
Hearse



Hospice



Landfill



"LifeGem Location"



Mausoleum



Memorial Garden



Monument



Morgue



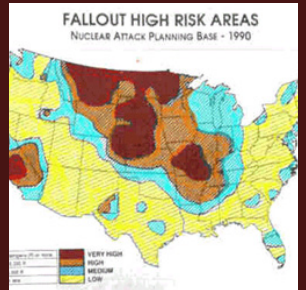
Mortuary Chapel



Necropolis



Nuclear Zone



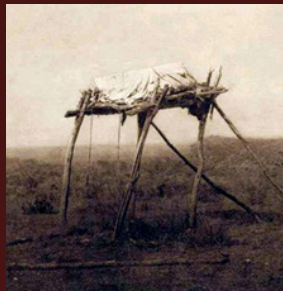
Old Folks' Home



Ossuary



Platform Burial



Pyramid



Pyre



Ruin



Tomb



Tower of Silence



Perhaps we can classify deadspace?

1. Mortuary deadspace

Deadspace, at a surface level, refers to the places which we use to relegate human death to a zone outside of everyday experience. Cemeteries, crematoria, morgues, and funeral homes are the most common manifestations of this type, but they also include the more fantastic: pyramids, cenotaphs, ossuaries, etc.

2. Tangential deadspace

These types of deadspace deal with human death in more oblique ways. Churches, mosques, and temples are often the site of funerals, and they are a place where societal taboos about death are lifted, where ideas of resurrection and eternity are an integral facet of experience. Similarly, hospices and survival bunkers are places where people go with a raised awareness of the imminence of death.

3. Tectonic deadspace

There are even those deadspaces where the place itself is dead or dying. Ruins, due to wear or lack of maintenance, and obsolete facilities, due to a lack of demand or resources, exist as places left without purpose. Battlefields, nuclear fallout zones, and other contaminated sites prevent the use of space for everyday life, relegating them to a state of suspension.

Though useful, these may suggest deadspace is permanently separate from lifespace/normalcy/reality

In truth, deadspace is a *condition*

It has less to do with a geographic location than with events, decisions, and forces which have temporally changed a place. With this ephemeral definition, deadspace is more like the inverse of reality than a clearly defined piece of it: any place can become deadspace, but the condition is also reversible.

The transient quality of the deadspace condition does not mean it is asomatous. Deadspace is highly corporeal; it comes into being only through the *presence* of debris, decay, contamination, the dead, etc.

[Though deadspace is a condition of suspended reality, it is not a condition of absence] <- maybe.

² Derrida, 184

³ Jung, 180

“Image is death”²

“Images are life”³

deadspace.

How did deadspace get this way?⁴

As deadspace threatens to become reality, there is a simultaneous encroachment of reality into deadspace. In the vast history of the architectures of death, profound variances exist between regions, cultures, religions, and time periods. In each locale, each epoch, the definition of deadspace shapes a different archetype. From pyramids to graveyards, mausolea to catacombs and ossuaries, the spaces for our dead have manifested as forms both grand and humble; they have stood for millennia, and they have weathered to dust like those interred within. Nearly always they have remained hallowed, the hushed places we push to the edges and beg to forget - now a number of forces begin to corrode that sanctity and penetrate those borders.

Exile of the dead:

The way of the world is to leave the dead and move on; life begins, grows, breeds, dies, decays, makes way for the new. There are a few other species that mourn the loss of their fellows, but it is only humans who dedicate ceremony and construct to the dead. From the earliest human remains, we find that people have decorated their dead with coverings and flowers, given them belongings to take to the next life, and laid them to rest in protected places. Whether the place was a cave, platform, grave, or boat, the dead were sent away from the space of the living to an “other” place: deadspace.

Houses of the dead:

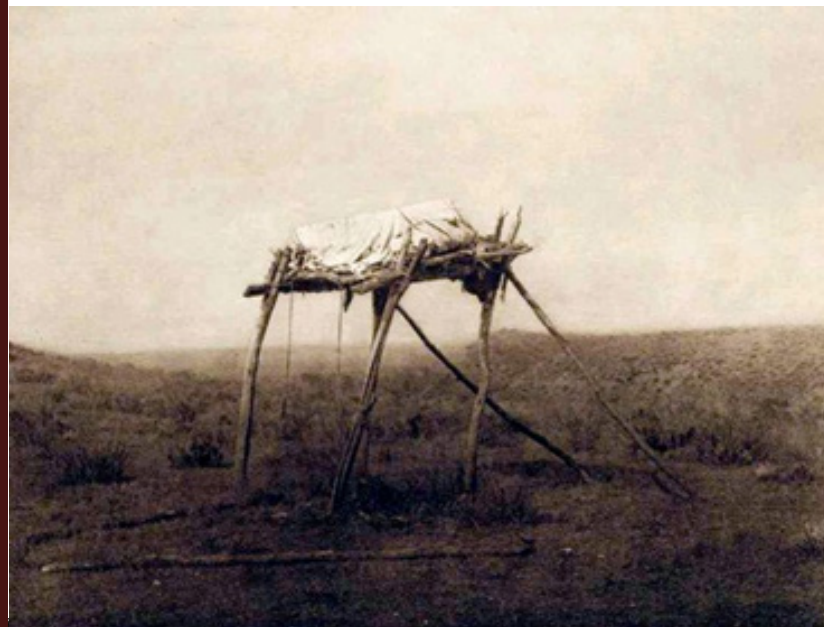
In Ancient Greece and Rome, burial practices were more progressive for a time than they were for centuries after; for reasons of hygiene, the Greeks often preferred to cremate their dead. The Romans built memorials along their roads, the dead lined along their axes like an eternal cadre.⁵ Many tribal peoples around the world have developed the practice of burying the dead close - in the hut, in the garden, in the middle of town. In these cultures there is no separation between deadspace and the living. In Medieval Europe, the dead were often buried within the church walls and floor.⁶ In many Asian cultures, the preferred practice has been to cremate the dead; on pyres, in huts, in fields. These groups most typically scatter the ashes, making deadspace a fleeting construct that burns with the deceased, and then joins the larger whole.⁷

⁴ This book cannot claim to be an exhaustive resource on the history of mortuary practice throughout human time, but the general trends are useful to discuss. For a breakdown of current practices by nationality, see index I.

⁵ Ragon, 49

⁶ Mims, xii

⁷ Matsunami



In many other groups, the dead are feared, and their space is allocated carefully, separately, from the space of life; this is how the graveyard developed. With the increasing urban density in Europe in the eighteenth century, population growth meant more and more dead to deal with; churches needed to move their dead from within the “communal house” of the chapel and out into the church yard. Church graveyards had a highly stratified organization of private tombs for those who could afford them and mass graves for those who could not; the poor were unearthed from their mass burials after five to ten years and their bones were transferred to ossuaries, their last traces of identity lost.⁸

Cities of the dead:

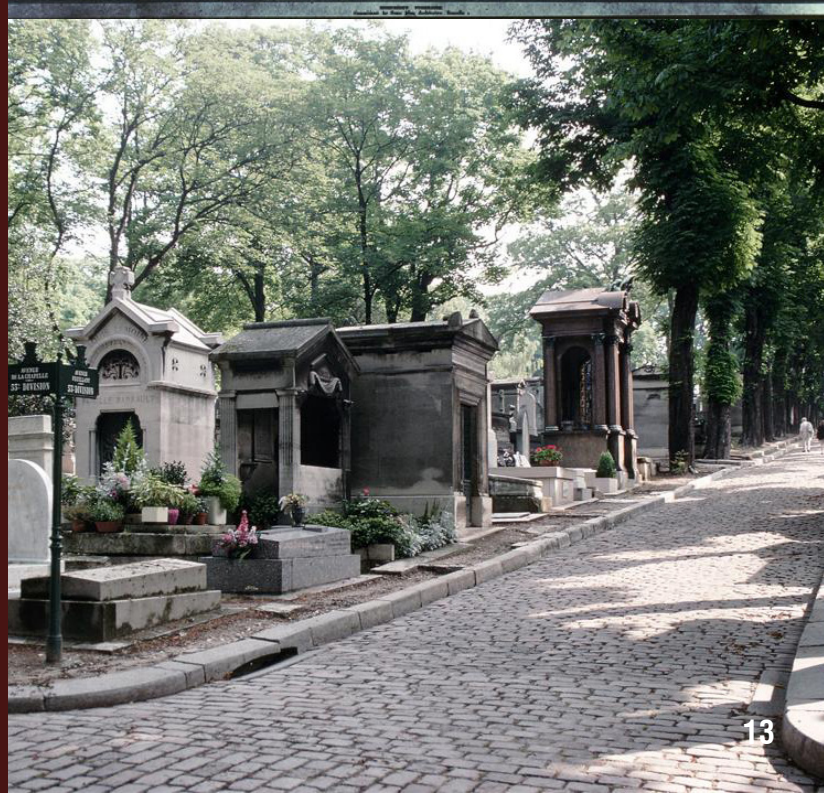
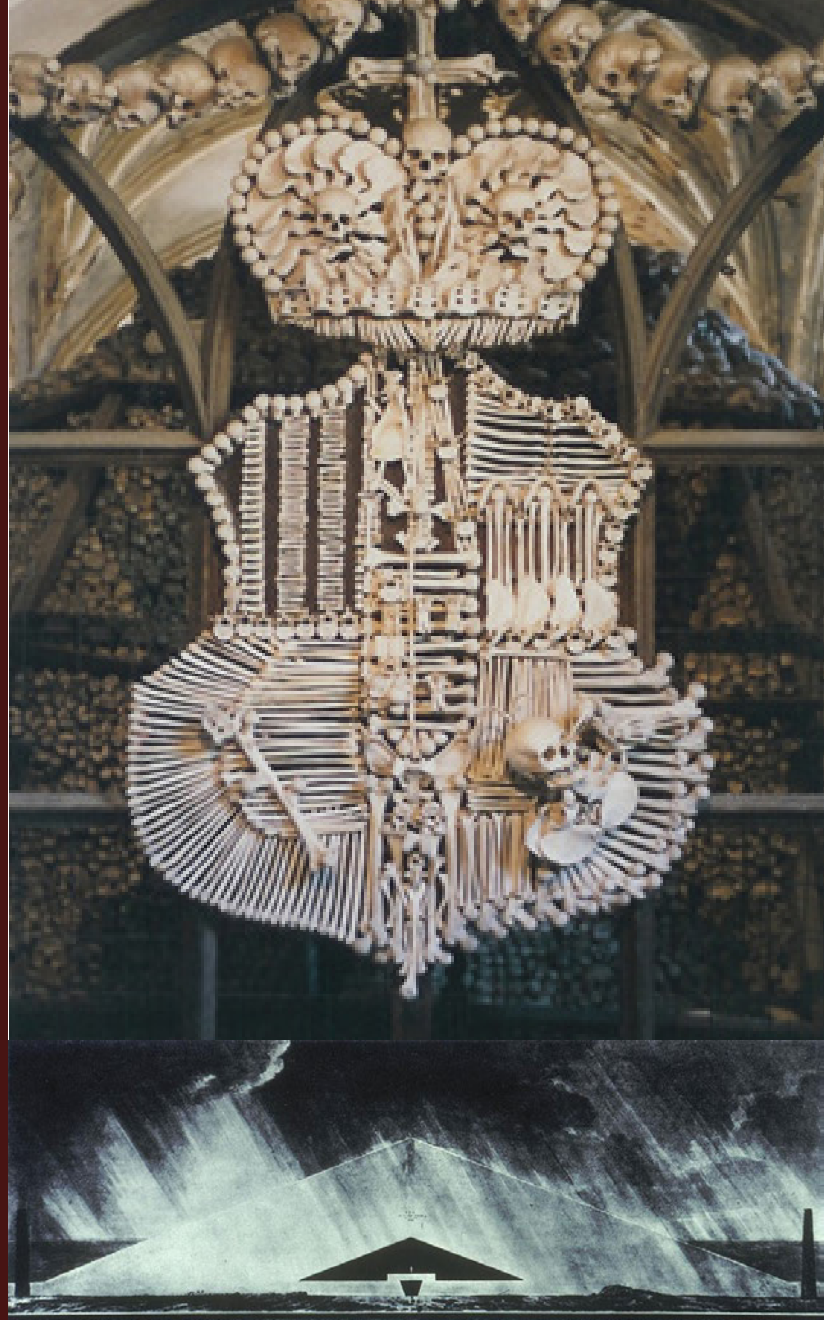
In the late eighteenth century, particularly in France, funerary design was teeming with an exploratory enthusiasm for symbols and shapes from all of recorded history; these architectures parlante strove to make the presence of the holy tangible through the glorification of making.⁹ Many of these projects granted deadspace a heroic scale. The grandiose proportions took the architecture from the human scale and placed it in an intimate conversation with larger elements of nature and the physical world: horizon, shadow, sky, stars. Ledoux conceived of a cemetery for the town of Chaux as a system of catacombs residing in the quarries used to mine the stone that built the town, the necropolis thus residing in the negative space left by the needs for the town of the living.¹⁰ The inverse relationship between life and death manifested as a physical condition. Those projects, though mostly unbuilt, were indicative of a larger shift; Enlightenment thinking suggested that cemeteries and the dead produced “vapours” and were dangerous to public health, so it was necessary to move them outside the city. This began the development of vast necropolises on the outskirts of many cities, such as Père Lachaise in Paris, Highgate Cemetery in London, and Mount Auburn Cemetery in Cambridge, Massachusetts. These new “rural” or “garden” cemeteries became popular as destinations for the public, and were precursors to the municipal park system. Before this time, large cemeteries were unheard of in the United States.¹¹ Even smaller parishes began to move their cemeteries to the outskirts of towns and villages in the same of health and safety.

⁸ Foucault, 353

⁹ Etlin, 108

¹⁰ Etlin, 130

¹¹ Jackson, 10



Houses of the dead [again]:

A Western culture shift from “death in the home” to the “funeral home” as a type occurred in the late 1800’s.¹² Advances in medicine meant that people were dying in hospitals more and more frequently, rather than in their homes. Today, almost %70 of Americans die in a hospital.¹³ The funeral home emerged as mortuary specialists professionalized their practices, and people found a need for a ceremonial space following death outside the home. As society began to trust more in empirical evidence and less in spiritual belief, people become less sure of our perpetuity after death; we become more and more concerned with the treatment of the body and the physical traces we leave. We now seem to fear death more than we fear the dead.

Apartments for the dead:

Globalization, increasing population, and increased concern with the body after death brought cremation a new appeal in many parts of the world where it was not traditionally practiced; the first crematorium in the United States was not built until 1876. For much of its existence as a practice, cremation has been a communal cathartic ceremony viewed by the mourners, but in the early twentieth century, the viewing of the furnace began to be covered up in most crematory buildings, with the ceremony instead being held afterward at the columbarium or scattering of the ashes.¹⁵

Virtual space of the dead:

There are now even memorial sites on the internet.¹⁶

In the investigation of deadspace, we must now acknowledge that the rising cost of funerals, decreasing amount of available land, and decline of the influence of religions in the general populous require a reimagining of memorial space. The new deadspace will be an inquiry into the ways architectures can mitigate these concerns and be used to propose alternatives to current models. I will postulate that a reinvented typology may better incorporate new technologies, serve people’s spiritual wants, more responsibly use land, and more cleverly alleviate the negative ecological effects of the deceased upon the environment.

¹² Campkin, 50

¹³ Carson, 1

¹⁴ Carson, 238

¹⁵ Roberts, 146

¹⁶ Colquhoun, 13

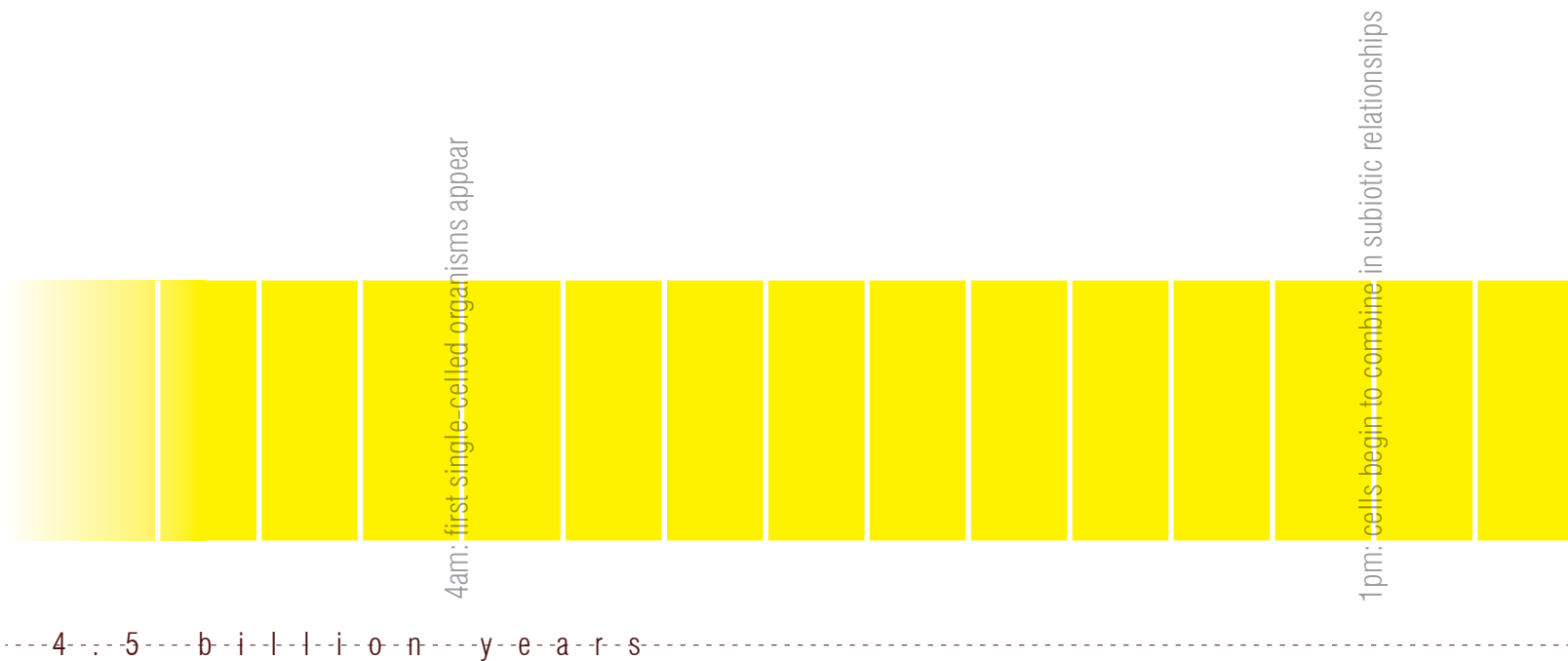


Fig. Giovanni Battista Piranesi, etching



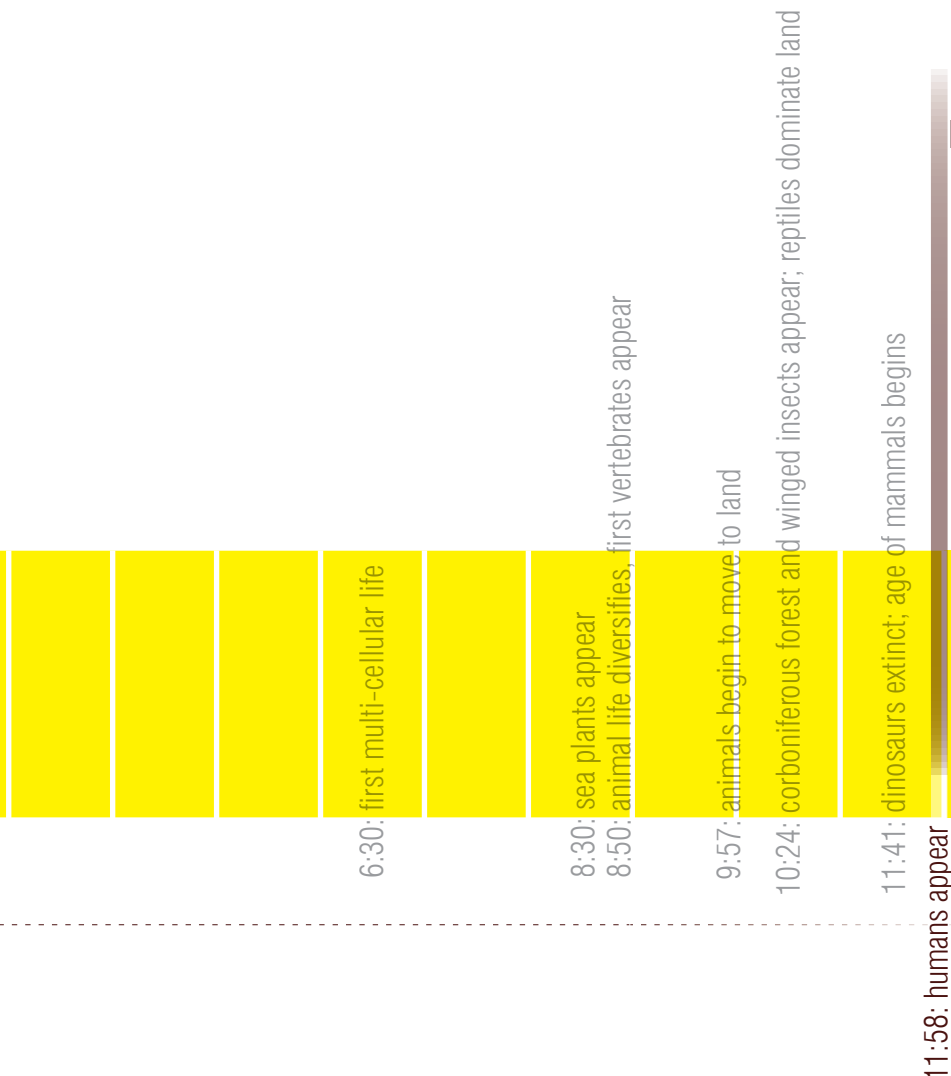
**"The more our
knowledge of the past
becomes objective, the
less the past can be
applied to
our own time."** ¹⁷

Deadspace places a person within a sphere of understanding, aligning us with an insight to our place in its opposite: reality.
A contemporary deadspace should contextualize the relationship between humanity and our environment based on current truths.



A pressing truth that deadspace largely ignores is our increased understanding of the ecological relationship between people and the planet

Our lives, and our deaths, are part of a cycle that has occurred on this planet for 3.8 billion of the 4.5 billion years since Earth's formation



If the *entire history* of Earth was condensed into 24 hours, human life would only exist for the last *minute and 17 seconds*

Death architecture has always been about finding our place in the eternal - but: the sad fact is,

**the way we are living
and the way we are dying**
mean that *humanity will probably not be eternal*.

We are destroying the only environment that we have.

However it is made,
architecture uses a lot of resources,
affecting the place it is built AND the
places those materials come from

Architecture is part of a much larger system.

However it is dealt with, a body always has an effect
on the environment

We are part of a much larger system.

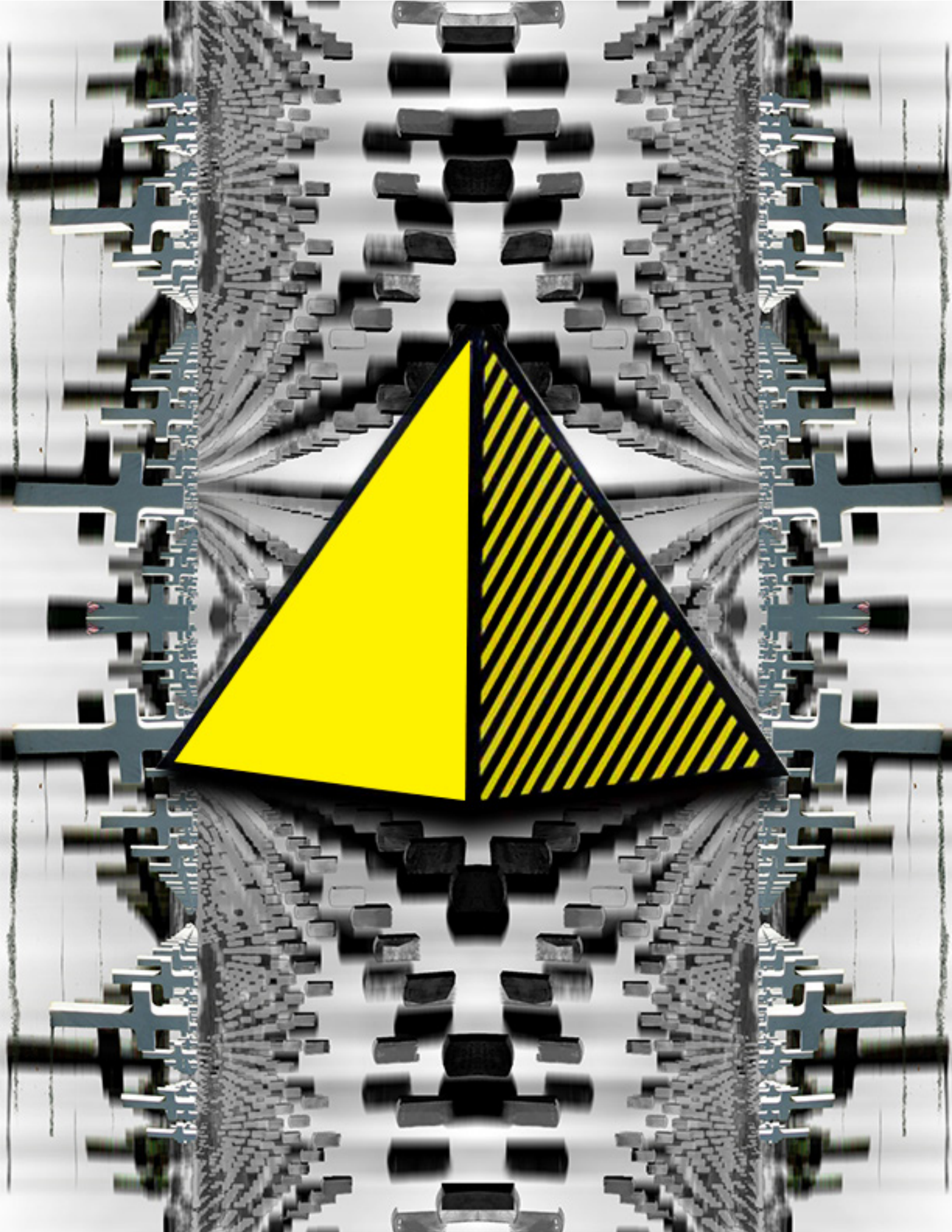
Why is $\$ \mu \$ \dagger \Delta \dot{\iota} \pi \Delta 8 \dot{\iota} \pounds \dot{\iota} \dagger \pounds$ a bad word?

Can't we talk about it ...
in a way that won't make people roll their eyes?

**I DID A
LEED PROJECT ONCE**



IT WAS AWFUL



I. Typological Analysis + Critique

Deadspace is not functioning well:

Cities around the world face **severe land shortages** for the living and the dead:

Overcrowding in cemeteries

has caused cremation rates to reach very high numbers in many parts of Europe and Asia:

50% China

73% UK

99% Japan

Though the issue is not quite as imperative in other areas of the globe, cremation rates are showing a similar pattern in many industrialized nations, in urban areas and elsewhere:

70% Sweden

69% Canada

65% Australia

45% United States

the shift seems to be due not only to necessity, affordability, and expedience, but also to changing cultural values.

In other cases, land shortage means the living poor are moving in deadspace. In a slum of Cairo, Al-Qarafa, the City of the Dead houses more than a half million residents who are too impoverished to afford to live anywhere else in the city. They live amongst the mausolea and graves of a necropolis whose founding goes back to 642 AD.¹⁸



In the North Cemetery of Manila, poor families have converted inherited mausolea into makeshift homes; gas stoves, electricity, and the celebrations of life occur on top of tombs, and sleeping sometimes takes place inside of columbarium slots. In this, and other cemeteries in the Philippines, overcrowding is so serious that each grave must be unearthed after five years, and the bones transferred to a new location.¹⁹



Overcrowding and unearthing of bones is happening in many cemeteries globally, particularly in poorer and more religiously conservative metropolitan areas where cremation is not seen as a legitimate alternative option.²⁰



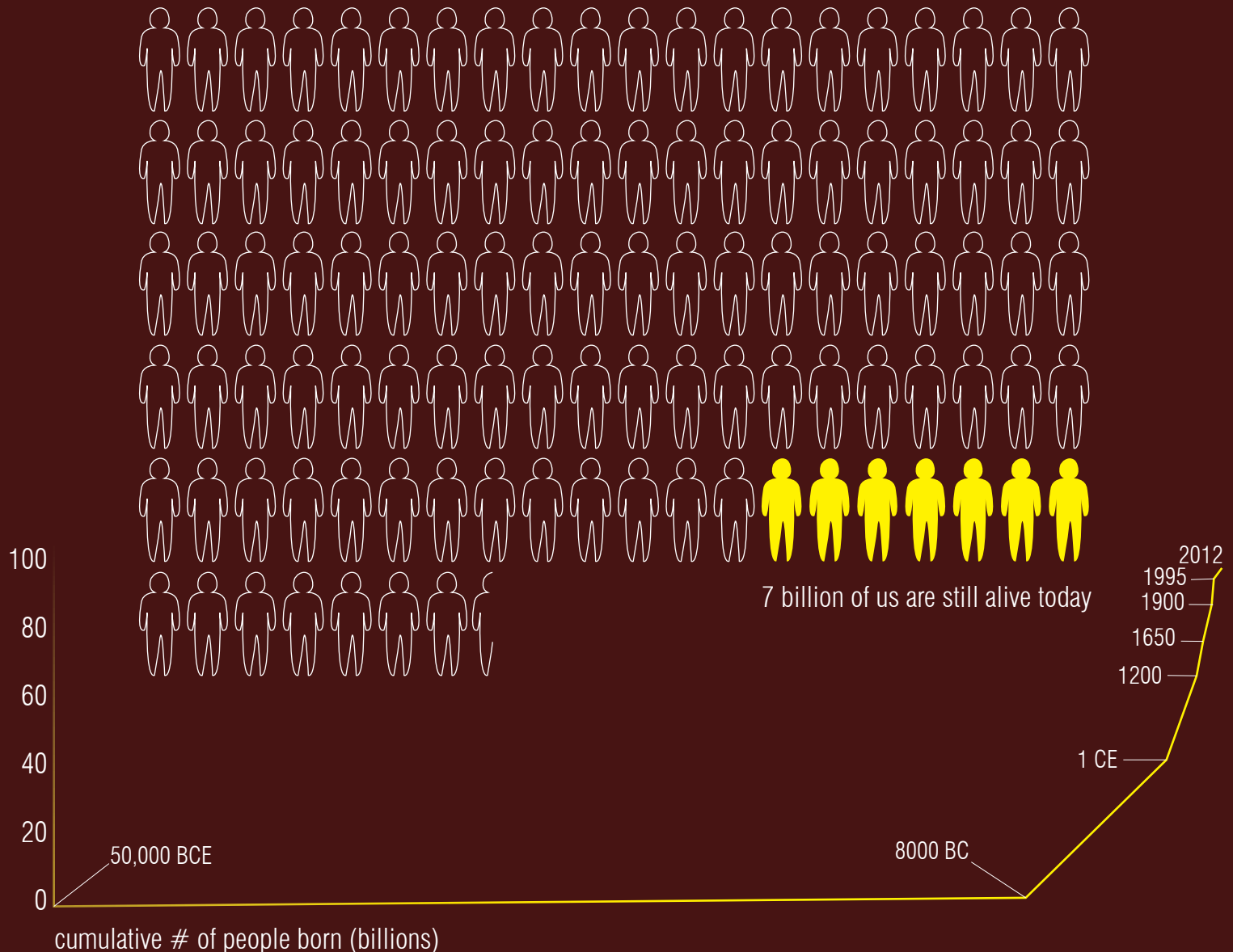
18 Molatore
19 Hawker
20 see index I

Do we need more space for deadspace?

We think we can practice our rituals in perpetuity, but it's becoming a spatial impossibility. Our global population is increasing in an exponential curve -

We can't keep doing things the same way.

107.7 billion people have been born in all of human history



If a typical grave is 5' deep x 3.5' wide x 8' long, and about 100 billion people have died in the course of human existence, we would still only need a coffin 3 mi x 3 mi x 3 mi to hold everyone who has ever died, even assuming the bodies never decomposed.

Space is not the issue; it's **how** we make deadspace that is the problem.



3 miles

3 miles

3 miles

Syracuse, NY



What does deadspace look like?

The gradual sanitization of death in society has given us safer practices for dealing with the deceased, but it has also created a culture of *euphemism* in deadspace.

Using tastefully euphemized terms, practices, and esthetics, professionals in the death industry seek to make dealing with death easier by cloaking it in quotidian pretense. Symbols and forms which used to hold meaning and value have lost their hold because new associations have taken their place.

In contemporary society, the funeral home looks like a bank, a town hall, a dentist's office, a shop, a post office –

isn't it strange that our most honorific spaces have become so banal?

Can you find the funeral



A.



D.



G.

home(s)?



B.



C.



E.



F.

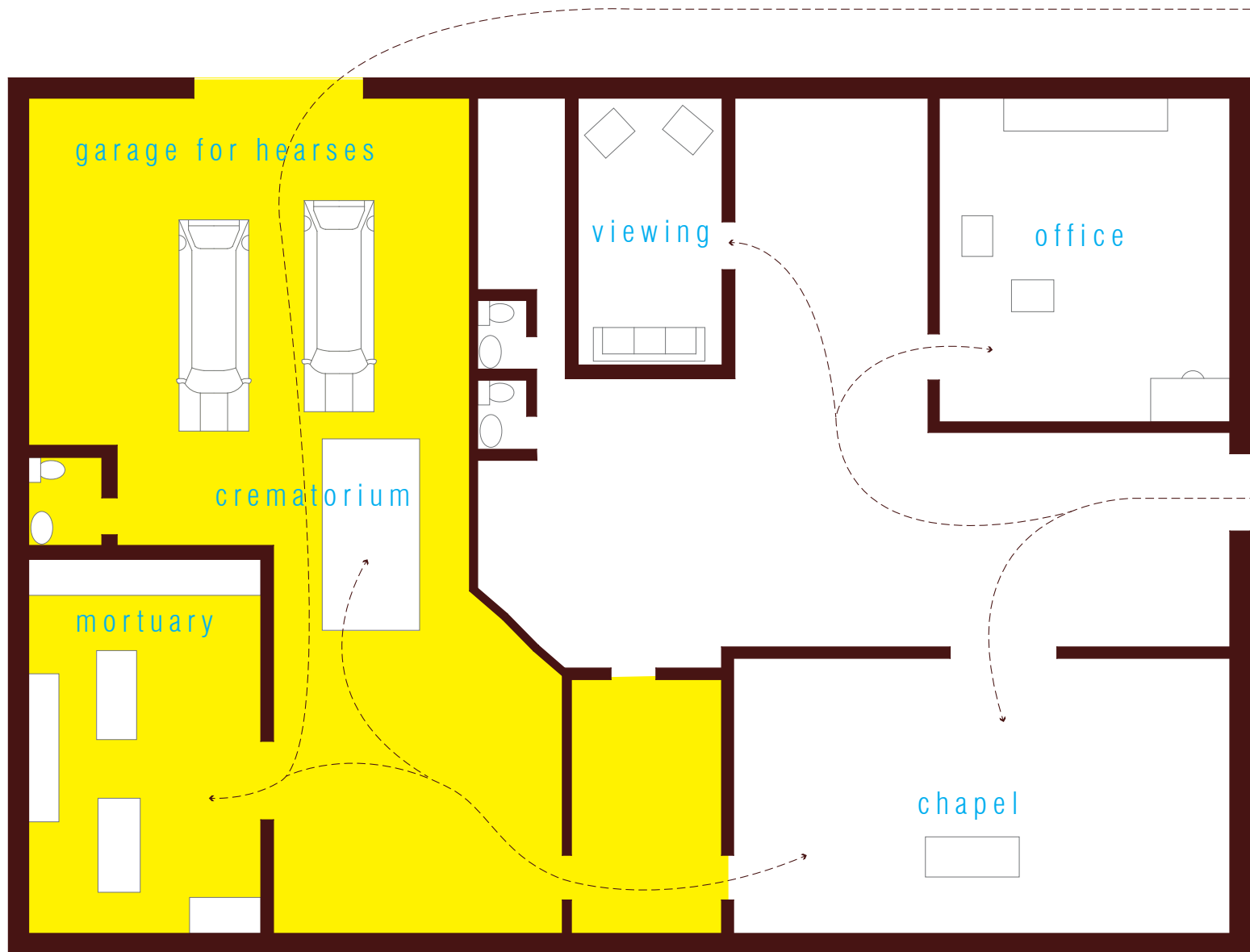


H.



I.

THE FUNERAL HOME:





“dirty” deadspace

Over the course of the twentieth century, advances in medicine began to move the dying process from the home to the hospital. Until this occurred, people had always typically died in their homes, surrounded by their families, making the death process a visible part of most people’s lives.

We’re now several generations removed from this condition: since then, funeral homes have developed to fill the need for a post-death space where the body could be “sanitized” and then reapproached for the funeral service. Funeral homes do this through a careful separation of constituent spaces. Like an elaborate stage set, the architecture creates a lens through which the living audience may attempt to cope with the reality of death.



“sanitized” deadspace

The attitudes of the living **(creators/participants)** manifest physically in deadspace **(architecture/ceremony)**

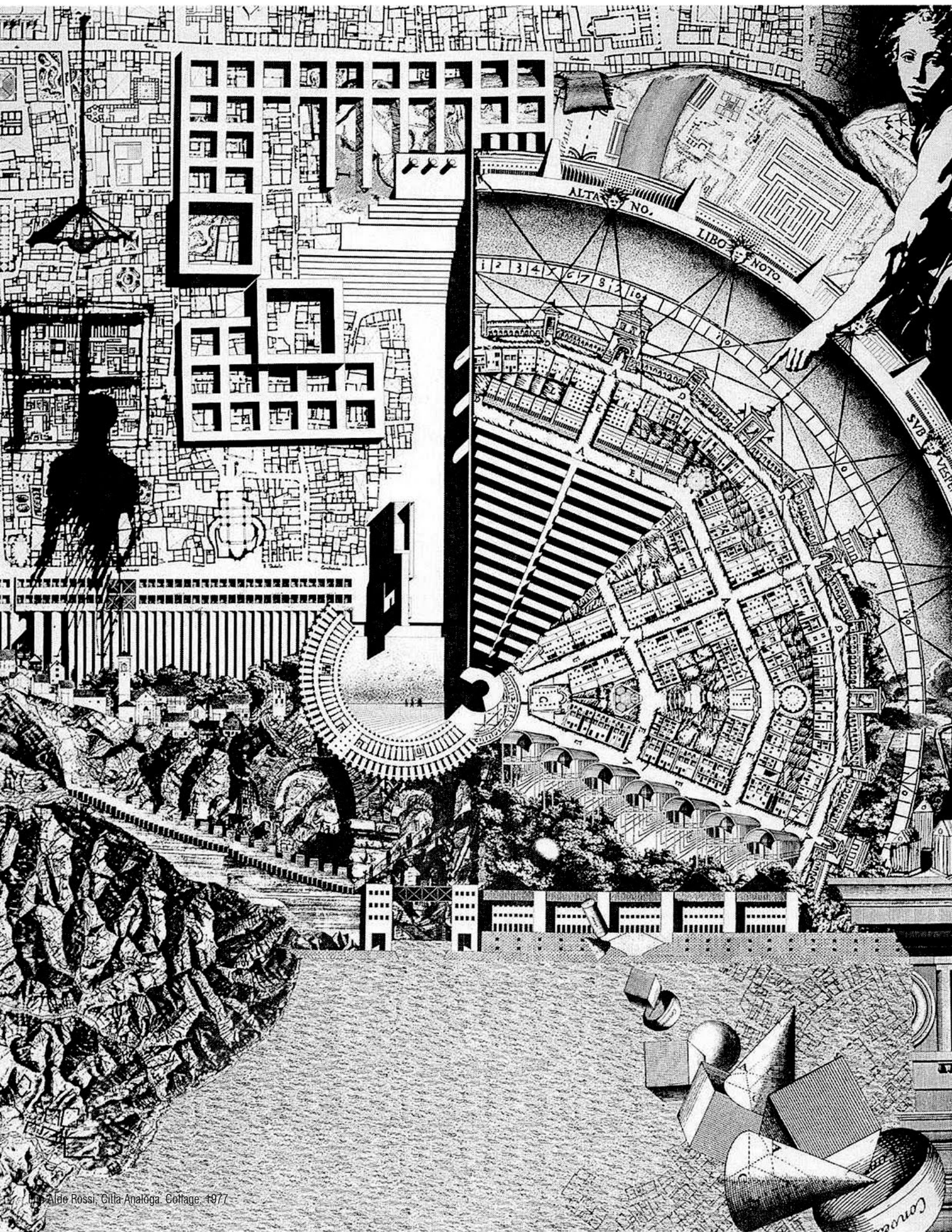
The mourners **(audience)** view the funerary production "starring" the deceased **(cast)** under the guidance of the funeral director **(director/conductor)** the illusion maintained by the employees **(theater staff/backstage)**

The “dirty” deadspace of the mortuary, hearses, and crematory are kept in the back behind closed doors. The spaces accessed by mourners are all at the front; the only door shared between the two realms is used to bring the body into the chapel. Here, deadspace is disguised as the home, mimicking the parlor deaths of an earlier era in order to appeal to people’s sense of tradition and comfort them through familiarity.

**The
funeral
home is
...lacking.**



Is this hell?



II: Ideological Perspectives + Logistical Concerns

Naturæ

speculum,

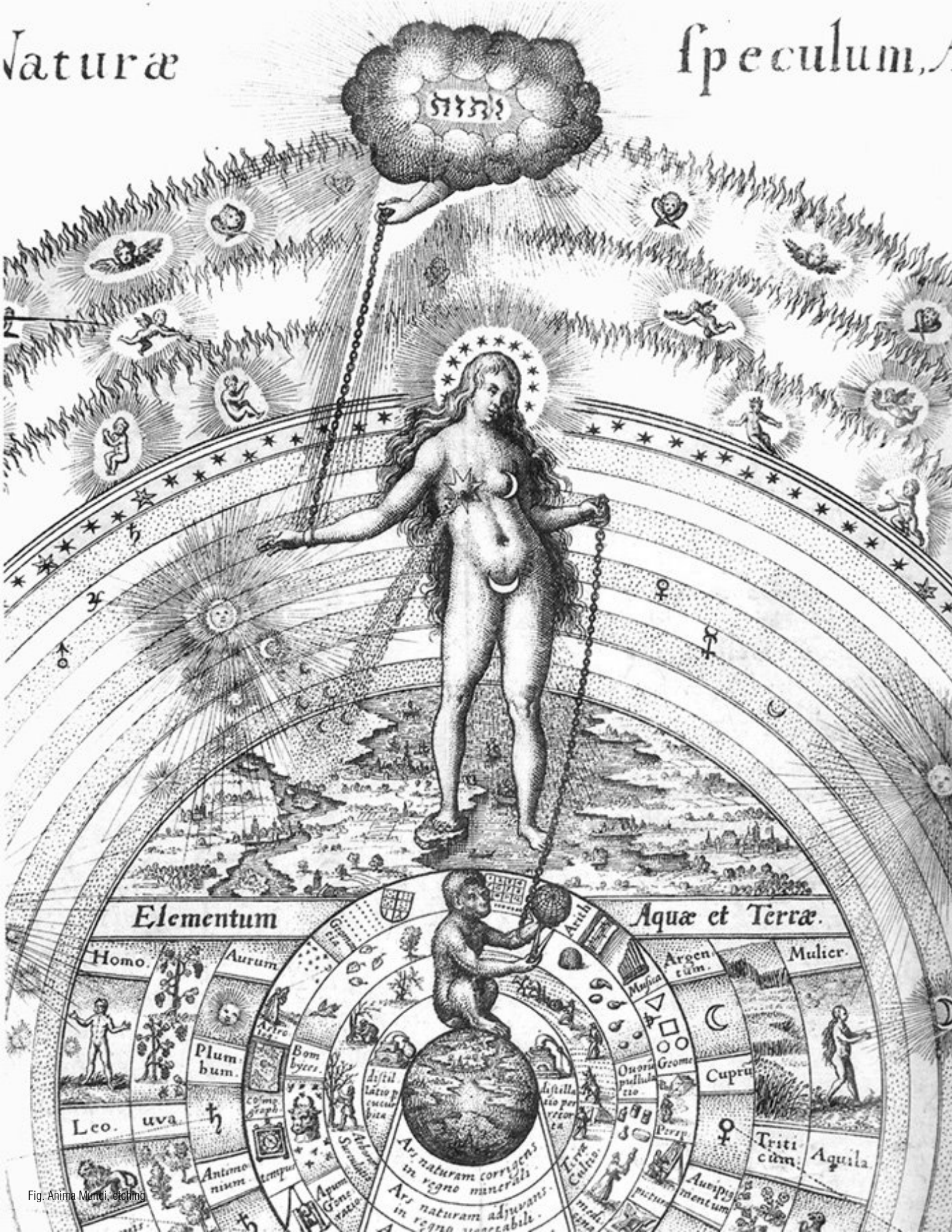


Fig. Anima Mundi, etching

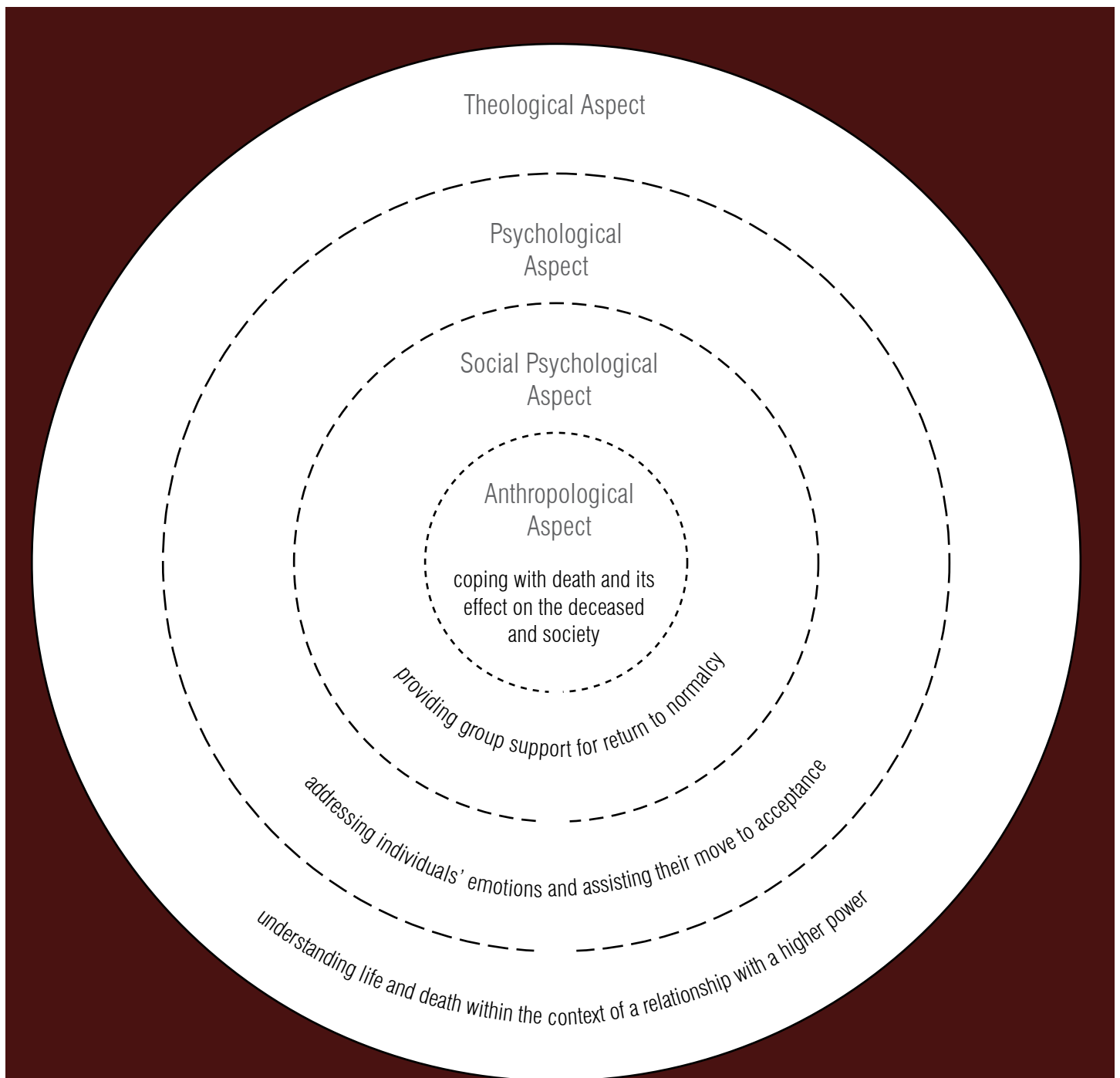
Anima mundi (n.) \ 'anəmə-'mũn-dē

the “world soul”

We tend to think of life as being held within our individual bodies, but it exists in a larger form that goes on infinitely through the beings, events, and things of the world.

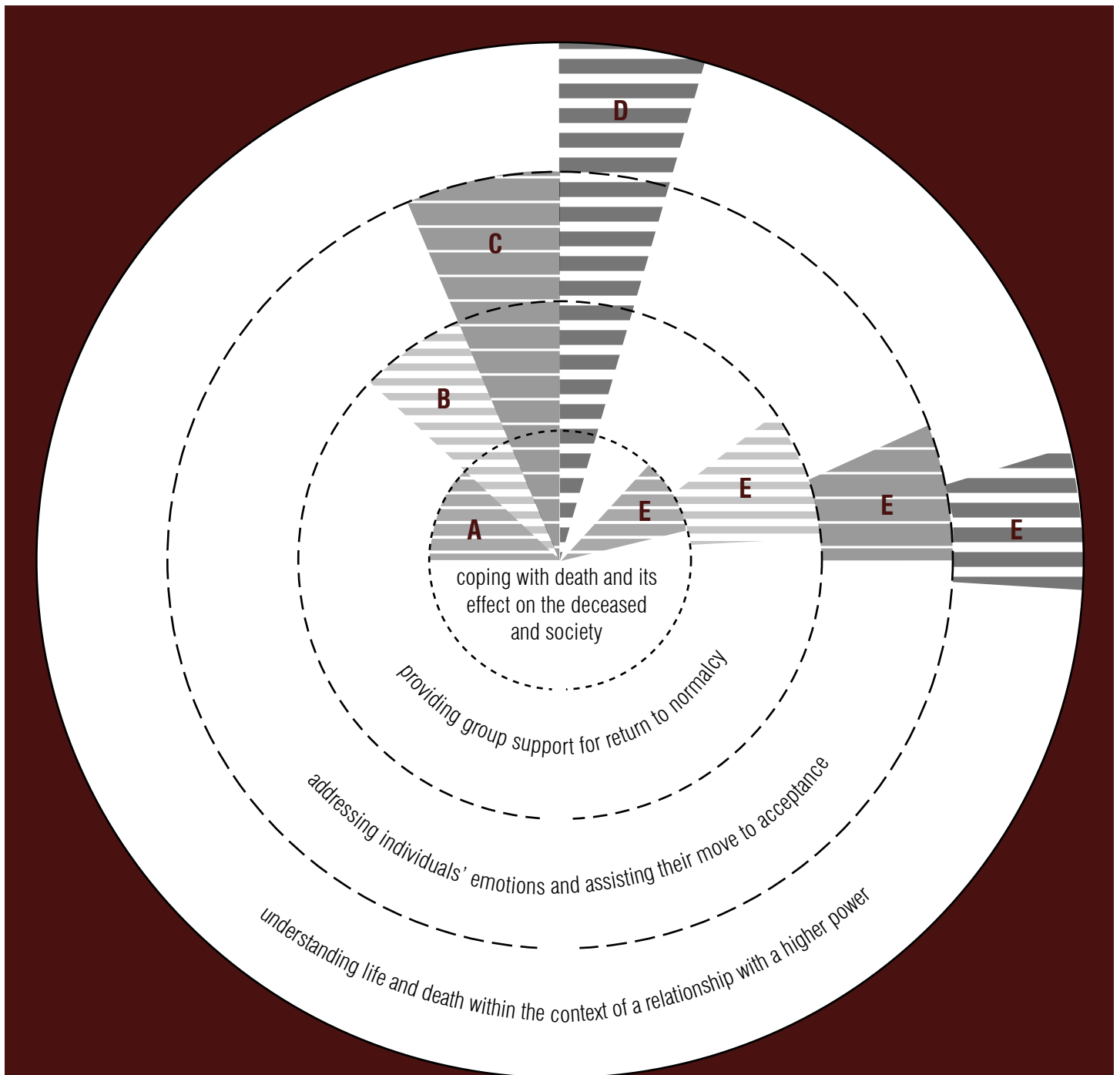
“Therefore, we may consequently state that: this world is indeed a living being endowed with a soul and intelligence ... a single visible living entity containing all other living entities, which by their nature are all related.”

Plato, *Timaeus*, 29/30



The modern funeral can be delineated into several dimensions, each serving a particular function in the mourning process.

These various aspects can be found in varying degrees throughout the plethora of funerary rites in common practice today. With the great variance between funerary practices found today, these dimensions are not all found equally in every service; in fact, many services may only incorporate one or two of the individual elements.



- A. Anthropological
- B. Social Psychological
- C. Psychological
- D. Theological
- E. Any or some of the above

Inclusion or exclusion of elements reflects certain life and death views. There seems to be a lack of sufficient definition of the funeral in many parts of contemporary society: is it a cultural custom, a religious ritual, or some of both? Is it tradition, devotion, therapy?

Varying practices related to death reveal 3 basic cultural attitudes:

death-accepting

immortality deemphasized; world affirmed

death-defying

immortality affirmed; world denied

we were here
for a long time...

death-denying

immortality-seeking; world-focused



WE ARE HERE:
youth-obsessed
skeptical about what lies
"beyond"
obsessed with worldly
concerns



Who owns deadspace?

Deadspaces may:

be government-owned

be locally owned businesses

exist on private land

exist virtually

There is an alarming trend of corporatization of the funeral businesses. Service Corporation International (SCI) is the largest such conglomerate; they own more than 3,000 funeral homes and cemeteries globally, including more than a third of the funeral businesses in France and more than 800 in the United States.²² These massive companies gain mass-purchase discounts on their supplies and services, but do not pass the savings onto consumers.



< - SCI quotes their NYSE value on the front page of their website.

Today, even death is not too sacred to be commodified.

A yellow rectangular sticky note is placed diagonally in the bottom left corner of the page. It contains a stock quote for SCI. The text is as follows:

Stock Quote	
SCI	
Exchange	NYSE
Price	\$ 14.27
Change(%)	▲ 0.02(0.14)
Volume	113,195
As of 12/10/2012 10:20 a.m. ET	

How much does deadspace cost?

If the average price per acre for open land in the contiguous USA is \$2,140:

Most cemeteries do not pay any property taxes because they create a permanent land condition that can never again be “commercially developed”.

Many cemeteries in the United States are organized as non-profit corporations, making their revenues not subject to federal, state, or local taxes. Typically a non-profit cemetery does not own the land; they will be contracted by the land-owner to sell graves and maintain the cemetery.

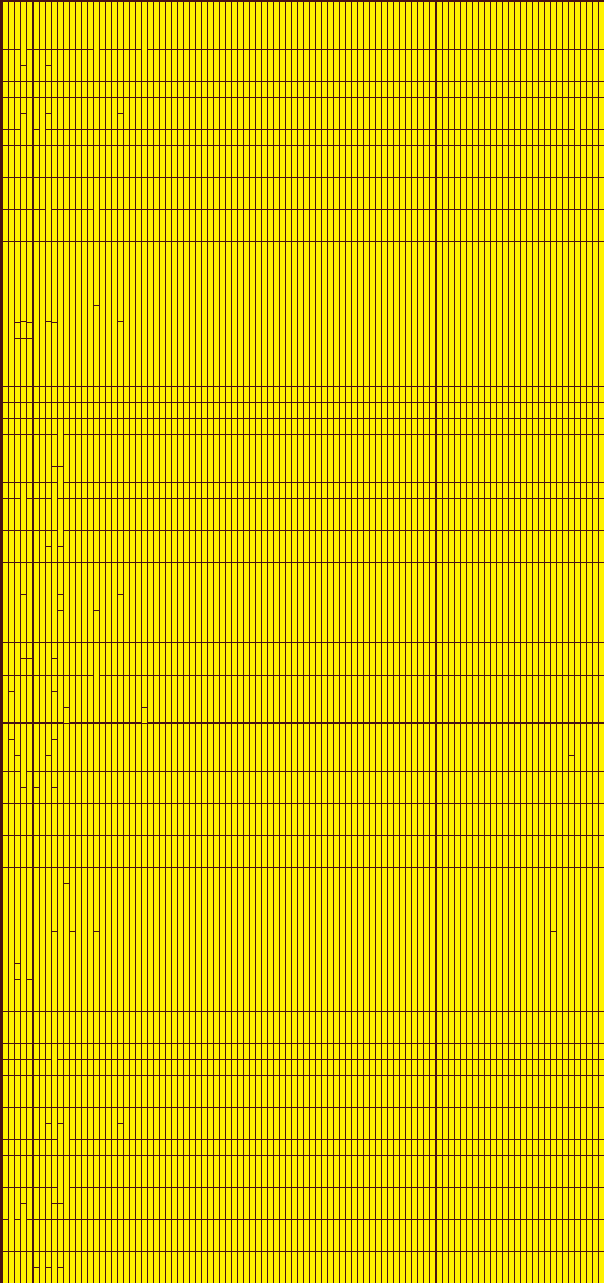
The profit rate is about %90, with only about %10 of revenue being needed for maintenance costs.

1 acre = 1,000 grave plots

requires no construction

charge:
\$95 - \$1200 for a cemetery plot = avg \$600
+ \$500 for vault + \$500 for marker+ \$600
for opening and closing the grave = \$2200

= **\$2.2 million profit per acre**



1/3 acre = 1,000 crypt mausoleum

costs about \$750,000 to construct

charge:

\$900 - \$3000 per crypt = avg \$1800

= \$1.05 million profit per 1/3 acre

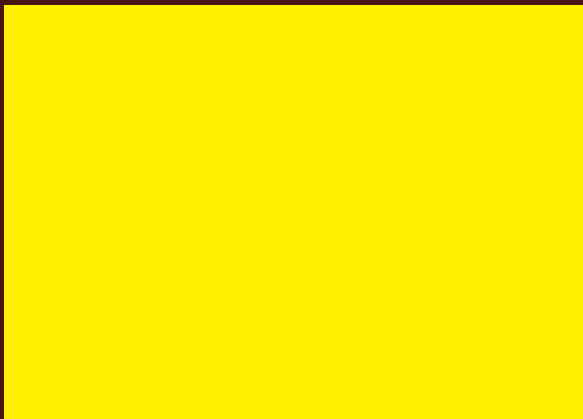
.002 acre = 1000 urn columbarium (1 ft³ per urn)

costs about \$60,000 to construct

charge:

\$200 - \$900 per niche, average \$400

= \$32,000 profit per 1/500 acre



Deadspace can make a *LOT* of money

The commercialization of something as sacrosanct as death may seem shocking, but deadspace has always been a mirror of cultural values –

today *monetary value* drives values

Casket sales often use a “stair-step method” in order to sell the more expensive models:

1.

Customer is shown casket A, the cheapest casket at \$1975, but is told it is in the \$1500 - \$2000 range. The cheapest option is also usually shown in the ugliest color

2.

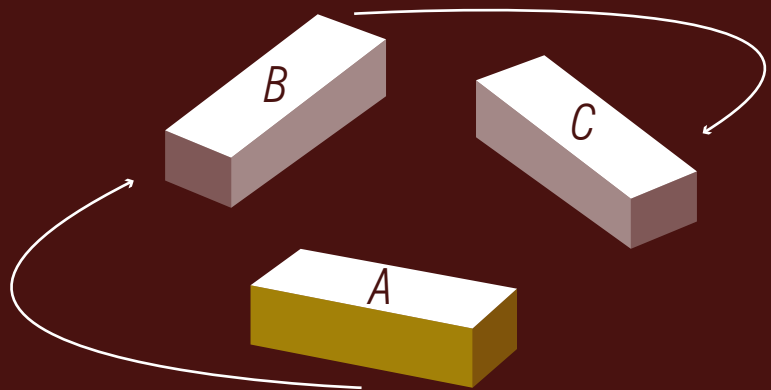
The customer is shown casket B, the most expensive casket, at \$2225, but is simply told that it is “only \$250 more”

3.

If the buyer showed no concern with the price at this point, they would be led to a more expensive triangle of caskets; if they seem concerned, they are shown casket C

4.

The customer is told casket C, which costs \$2025 has a “savings of \$200,” and people often buy this middle-range model simply because the method of presentation makes option A seem inferior



The ridiculous variety of coffins, urns, headstones and other accoutrements of death that are mass-produced and peddled to the bereaved reflect a larger culture of conspicuous consumption:

our deaths are *ritualistic analogues* of our lives



Fig. Casket sales floor at an American funeral home

When the mausoleums, lots, plots, niches, and columbaria are filled, cemeteries fall into ruin, unless they have a permanent-maintenance fund.

From one form of deadspace to another, these mortuary places crumble into disrepair and find new life as soccer pitches, graffiti canvases, garbage dumps, and even as the rendezvous site for your local drug dealer.

The commercialization of death does protect our memorial spaces for a time, but the money in deadspace is not renewable - is there an alternative that would work in perpetuity?





Fig. Living and playing in the North Cemetery of Manila, Philippines



An aerial photograph of a coastline. The top half of the image shows clear, turquoise water with visible ripples and a small white circular object in the upper right corner. A narrow, light-colored sandy beach runs diagonally from the middle left towards the bottom right. To the left of the beach is a dense, dark green forest with many small, bright green spots, possibly flowers or small trees. The overall scene is a natural, coastal landscape.

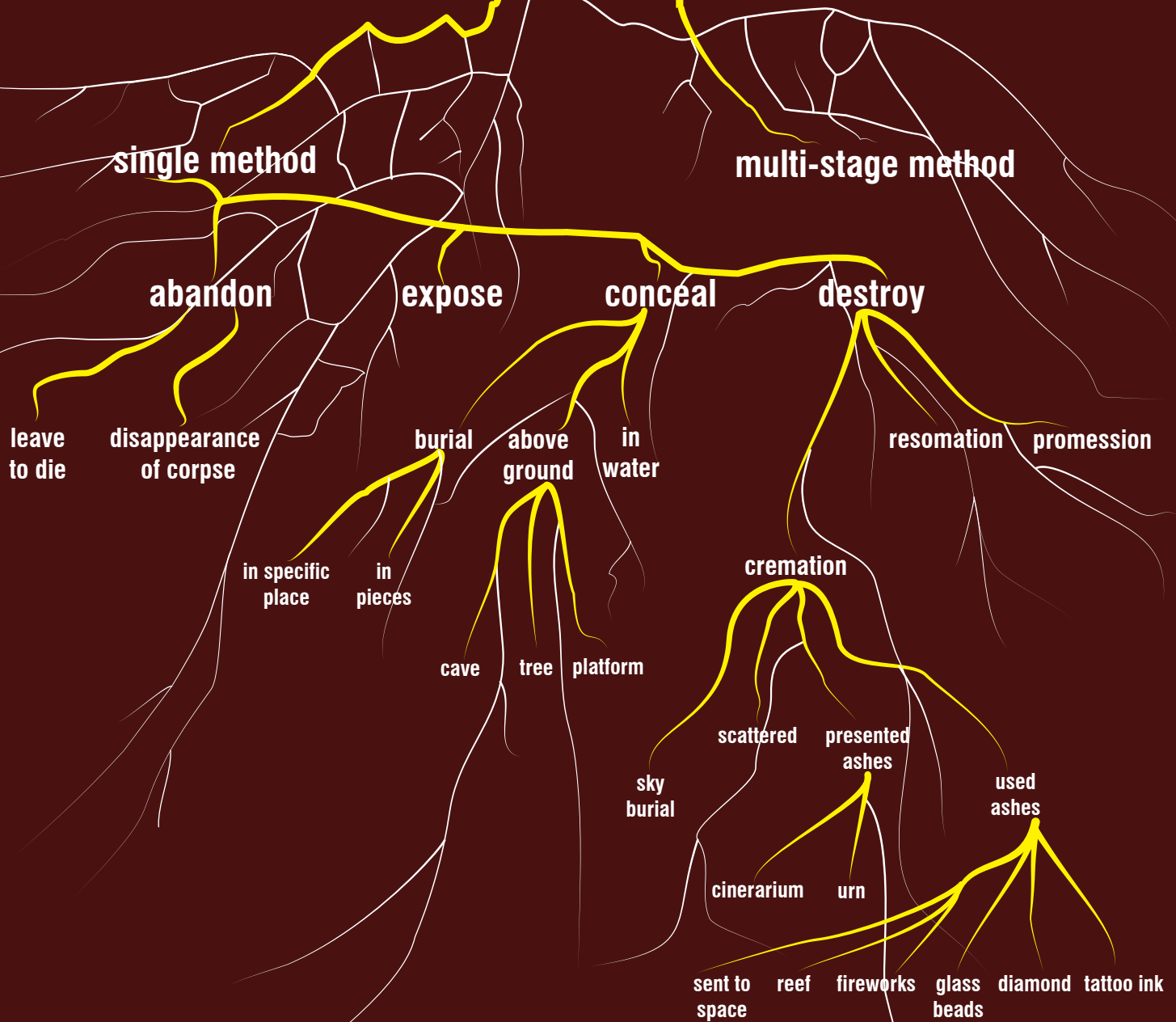
A WAY OF DEATH IMITATES A WAY OF LIFE



Fig. Sky burial tower, called a dakhma: Yazd, Iran

III. Alternative Technologies + Precedent Comparisons

mortuary techniques





Burial:

The oldest and most common method of disposing of bodies is burial. Specific practices vary from place to place, and have changed somewhat over time, but the concept of burying (interring) the body is ancient to the point of being pre-historic. Burial is a symbolic ritual of rejoining the body with the earth, and of rejoining the soul with the underworld.

Burial has changed a great deal in recent years though, particularly in the United States, in that the method of preparing the body and its coverings has become incredibly elaborate and discourages the decompositional processes of the body.

Many animistic societies bury their dead in the floor of their homes or in their gardens. Burial is still the preferred method of corpse disposal for many traditional religions and their followers, including Muslims, Orthodox Jews, and Orthodox Christians.

A “deep” burial is one which occurs at least three feet below the ground. A shallow grave encourages the growth of more fungi, and can attract the attention of scavengers. In areas below sea level, or where the water table is high, burial must occur in shallower graves so as to avoid flooding.



Cremation:

Cremation has been practiced in many cultures for thousands of years, though it is only in the last century that it has become popular in many western nations. The process involves placing the body in a temporary coffin, often made of cardboard, and then in a cremation oven (also called a retort or cremator) and heating the remains until they are reduced to ash and bone. The bone is then reduced further to dust in a mechanical process and recombined with the rest of the ash.

Most cremation ovens run on natural gas, but they can be propane or electric powered as well.²⁶

Typically, the oven runs between 1000-1800 F and the process takes between one and two hours to complete, depending on the compositional makeup of the particular body.

The process, if completed up to code, releases clear gas, not smoke.

Pacemakers and the like must be removed from the remains beforehand; many personal effects that people might want to have cremated with them cannot be included due to emissions laws.

Cremated remains, if stored, will typically be kept in one of two places. If put into an urn, the remains may be kept in the home. Urns are available in every imaginable shape and color, and are peddled fiercely by mortuary professionals. Alternatively, cremated remains (or “cremains”)²⁷ may be placed in a niche in a columbarium (also called a cinerarium). The columbarium option means placing the remains in a cemetery, where they may be visited. Typically, a funeral will take place before cremation if the ashes will be kept in an urn, but it will take place after cremation at the columbarium if the ashes are kept in a niche.



Cremation - scattered

If the remains are cremated but not to be kept in the home or a cinerarium, they are typically scattered.

This practice comes from the Buddhist and Hindu tradition of scattering the cremated remains into a river or body of water, but nowadays it is just as often done from a mountaintop, over a favorite meadow, or even from an airplane high in the clouds.

Scattering the remains allows the deceased to literally and symbolically rejoin a location that was special to them in life.

There are some cemeteries which have made room for this practice by creating “cremation gardens” where the cremated remains can be scattered - for a fee.

The scattering of ashes may be difficult for loved ones who are emotionally tied to the remains, but it is a symbolic release of their grief that many find cathartic.

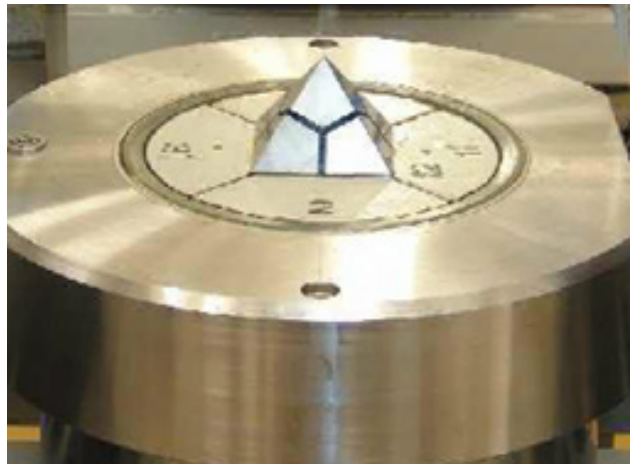
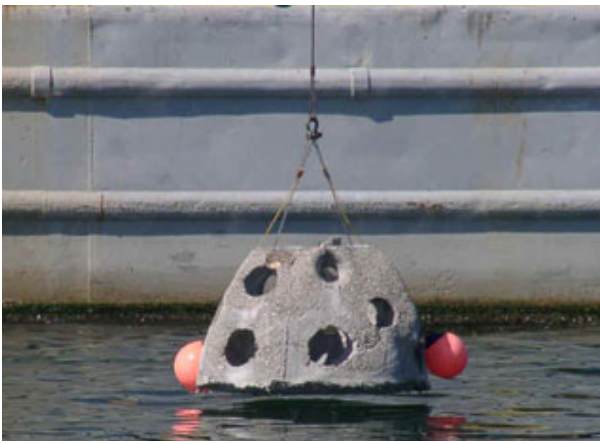
Cremation- ashes to plant

Cremated remains may also be buried, though this is less common than other methods. An interesting urn was invented for this purpose by Gerard Moline, a Catalan artist and product designer who designed Bio Urn.

The Bios urn is made from coconut shell, peat, and compact cellulose, so it is completely biodegradable. It contains a seed, which will germinate when the urn is buried, allowing the cremated remains to become a part of the new life in the plant.

These are some traditional funerary plants that one could choose for their symbolic meaning:

- evergreens (immortality)
- hardwoods (rot proof)
- cedar (longevity)
- box tree (the tree of Hades)
- cypress (pyramidal)
- yew (live to be thousands of years old)
- weeping willows (sadness)



Cremation - reef

Eternal Reefs Memorial Reefs are cast concrete that include cremated remains to make new habitats for sea life. They use a concrete formula and add special additives that increase its strength to 10,000 PSI, then create a surface texture that encourages growth. Marine growth covers the Memorial Reef, and becomes a protective layer on the memorial that enhances the environment.

The entire process takes four days and includes four rituals: the casting, the viewing, the placement, and dedication.

On a scheduled day, several Memorial Reefs are taken out to the reef site and placed on the sea floor while the families and friends observe from a boat.

Reef building requires permits by the Army Corp. of Engineers. Eternal Reefs only uses permitted locations designated for fishing and diving recreational purposes or for habitat development. The Reefs can go only in locations that are approved by the Federal, State, and local governments.

Cremation - diamond

The LifeGem is a diamond created from cremated ashes. They are molecularly identical to natural diamonds.

The process uses an 8oz portion of remains.

The process takes place in a high-nitrogen, low-oxygen environment, where the carbon from ashes is captured and treated under extreme temperatures to remove the ash and convert it to graphite.

The graphite is placed in a specially designed crucible that withstands temperatures up to 3000 C. The graphite is placed in an octahedral-shaped "growth chamber" in a steel "diamond press" which applies immense heat and pressure near 1,000,000 p.s.i.

The longer the graphite remains in the press, the larger the diamond becomes. They can range from .25ct to over 1.5ct. and come in blue, colorless, red, green, and yellow varieties.



Cremation - tattoo ink

Often called commemorative or ritual tattoos, these are made by mixing the cremated remains with the tattoo ink before applying a tattoo using the normal process.

This technique has existed since at least the 1970's, but has been gaining popularity in recent years due to increased exposure in the media.

The ashes must be processed and sterilized before being mixed with the ink to ensure that the tattoo is done in a sanitary fashion in compliance with health codes. Detractors claim that the process may be dangerous due to the foreign nature of the cremains in the ink, but those who have had this performed do not seem to have had complications.

The amount of ashes needed for this technique is very small, so it may be performed in combination with other practices, or may be split into a large number of tattoos.



Cremation - glass

Proposed as far back as 1798, by Pierre Giraud in his project for a "Field of Rest," turning cremated remains into glass has only recently become a reality.²⁹

Many companies exist who spin the cremated ashes into blown glass objects. This method, often called memory glass, does not chemically convert the ashes; they remain as particulates within the glass object and are still visible as white or grayish swirls.

There is also a process which was invented in 2000 in South Korea, which actually turns the ashes into the glass itself.

The ashes are ground inside a special machine into a finer powder, which is reheated and shaped into beads. These "death beads" can range in color from coral and topaz to gray and black, and vary in density depending on the person.



Cremation - sent to space

Memorial spaceflights have been available since the 1960's and are now offered by several private space flight companies. Celestis Memorial Spaceflights, now called Space Services Inc (SSI), were the first to offer this method.

They place a small portion of cremated remains into a permanently sealed, individual flight container on non-return spaceflights or on missions into space that return the cremated remains to Earth. The cremated ashes go into space as part of a real space mission, riding alongside a commercial or scientific satellite.

Celestis offers four services: Earth Rise Service includes spaceflight with return to Earth and starts at \$995. Earth Orbit Service launches the remains into Earth orbit and starts at \$4,995. The Luna Service launches to lunar orbit or surface and starts at \$12,500. The Voyager Service launches into deep space and starts at \$12,500.

Cremation - fireworks

Using proprietary technology, the cremated remains are loaded into specially modified fireworks shells. The cremated remains can be incorporated in an orchestrated fireworks service, or they be sold separately for at-home firing.

Several companies now offer this service, each with their own variation. Heavens Above Fireworks offers a few different displays. Some are similar to the shows seen at public events; they also offer one with "greater emphasis on the dramatic and noisy" and even "A Gentle Farewell: for those for whom more gentle, colourful, flowing fireworks would be appropriate; a softer display with reduced noise effects."

Angels Flight is a company which offers beachside services where the fireworks are fired over the ocean; up to six family or friends may also relax on a luxury yacht for the duration of the fireworks show.



Cryonic freezing

Also called cryopreservation, suspended animation, life extension, or even resuscitable corpses: freezes a person's body at the point of death in order to preserve the body until such time that a complete medical cure is found for the causes of death, at which time the body will be "reanimated."

Most morgues keep temperature at about 40 F (4 C) which delays decomposition for several weeks³⁰, but living cells can actually be stored at the temperature of liquid nitrogen -292 F (-180 C) and still divide after a slow thaw

There is no definitive evidence that human bodies can be deep frozen and then be revived.³¹

There are about 1,800 people with pre-need cryonics arrangements in place, and there are about 220 people who are now in suspension.

"Patients" may be whole body preserved or "neural," meaning head only.

The procedure costs upward of \$120,000 .

the process:³²

- patient takes an anticoagulant
- patient is perfused with preservative (antifreeze, glycerol, etc to avoid ice crystal formation in cells) and cooled
- frozen bodies are stored in aluminum tanks, usually 4 per container

30 Green, 152
 31 Carter, 39
 32 Mims, 214
<http://www.alcor.org/>



Mummification

Natural mummification can occur in rare cases due to extreme atmospheric conditions: dryness, heat, solar exposure, the presence of ice or the lack of air can all play a role.

The more common, though still unusual type of mummy is the human-made artificial type, which can be made using several techniques: evisceration, fire, smoke, embalming.

The most well known version is the Egyptian process, which consisted of numerous steps:

- 1) most of the organs were removed through an incision or through the natural orifices
- 2) the body was rinsed with wine and spices, then packed with temporary materials and sewn back up
- 3) the body was covered in a substance called natron (salts) or balsam, and dried on a sloped stone for 6 weeks
- 4) the desiccated body was washed and dried, then refilled with linen, resin, sawdust, and natron
- 5) the dried skin was treated with lotion, oil, or wax and the body and facial features were reshaped
- 6) cosmetics were applied
- 7) the eyes were closed or replaced with prosthetics; the fingernails were sewn on
- 8) the body was clothed
- 9) the body was finally wrapped in up to 40m of gum-impregnated linen

or, in Egypt there was also the cheap version:

- 1) cedar oil injected through the anus



Sky Burial

In the Zoroastrian and Parsi tradition, and in some sects of Buddhism, an interesting death ritual is practiced which involves the abandonment of the deceased in a strategic way so that it is eaten by scavenger animals, most typically carnivorous birds such as vultures.

The body is bathed and covered in a white cloth except for face.; then the corpse is placed on a dirt floor because it is seen as the most defiled object, which will contaminate whatever it touches.

The corpse is then carried to a place called a dakhma, Cheel Ghar in Hindi, or Tower of Silence (not a translation) in English, for “sky burial”. This is because internment is seen to profane the earth and cremation is seen to sully fire. The body is therefore exposed instead, to prevent putrefaction taking place, and to avoid dirtying the other elements. The exposure of the dead is thought to be the individual’s final act of charity, giving the birds what would otherwise be destroyed.

The body is laid with its head facing north on an iron platform and pictures drawn around it with an iron rod. The procession to the tower is led by one member, the nesusasara, who carries the body up, removes its clothes, and leaves it to be eaten by vultures.

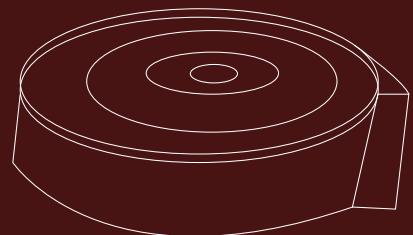
The dakhma follows a fairly standard aesthetic:

The flat top is where the bodies are arrayed in concentric circles

The outer ring is for men, the middle is for women, and the center is for children

The bodies are swept into the central hole once they have ossified

The bones in the center are dissolved using lime





Resomation (BIO Cremation/alkali-hydrolysis)

Resomation is a water and alkali-based alternative to burial and cremation. The process takes about 2-3 hours, and once it has completed, only sterile liquid and bone ash remain. The bone ash, unlike gray crematory ashes, is white in color, and has a finer consistency.

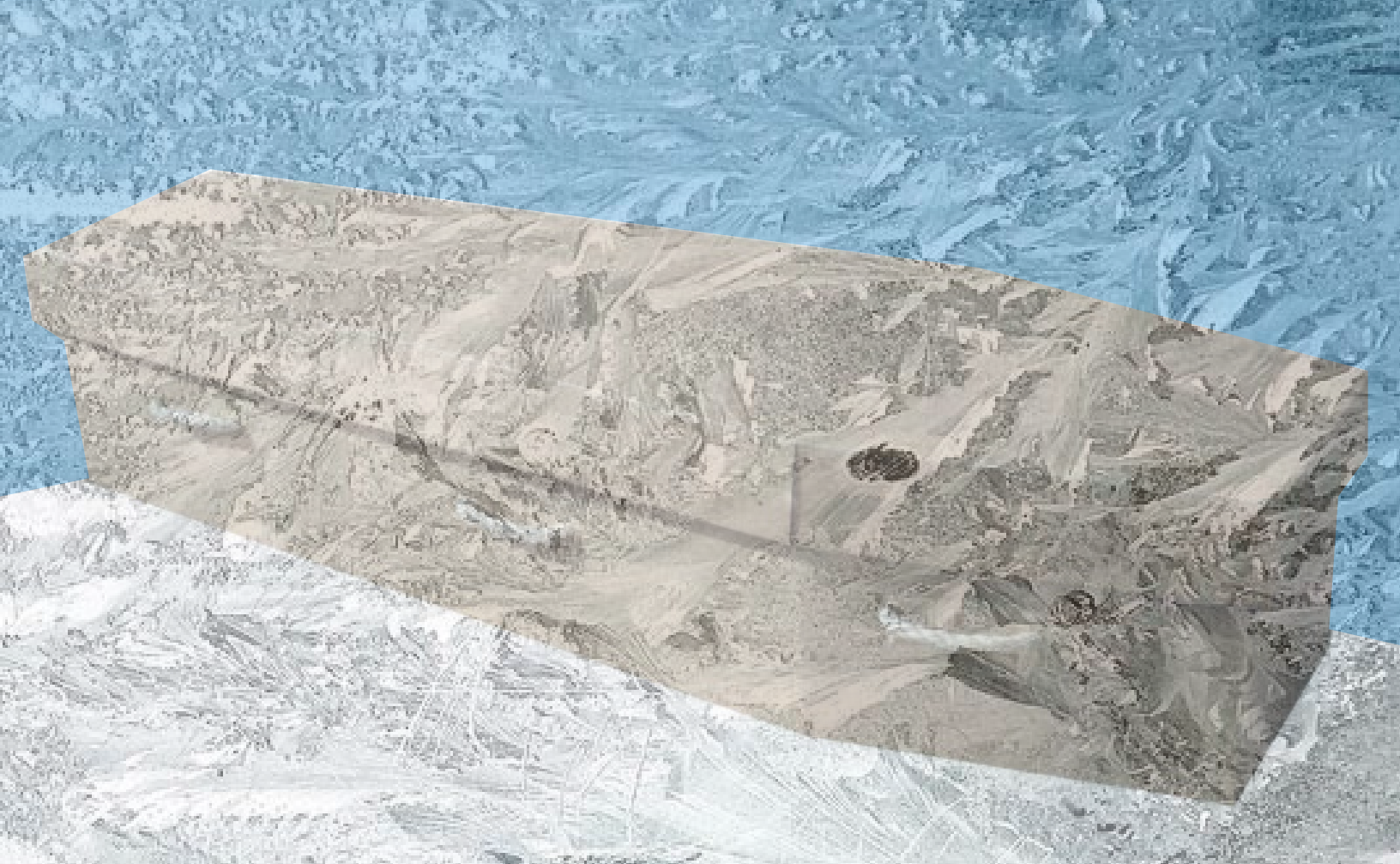
The sterile liquid produced is pumped back into the water cycle, free from any traces of DNA, and the bone ash remains are placed in an urn, just like in traditional cremation.

A funeral involving resomation is much like one involving cremation, until the point at which the coffin is taken away from view. In resomation, the coffin is placed into a resomator, and uses water and an alkali base compound - also known as alkaline hydrolysis - instead of fire to break the body down chemically.

This alternative also retains 20-30% more bone fragments than flame cremation does.

The energy needed for the resomation process in the form of electricity and gas is less than one-seventh of the energy required for a cremation. The process also has comparatively low operating costs to flame cremation.

So far, resomation is only legal in several States: Colorado, Florida, Illinois, Kansas, Maine, Maryland, Minnesota, and Oregon. Its legality is under legislative consideration in a number of other US states as well as in the UK.



Promession

Promessa Organic AB of Sweden has developed a new method of disposition for the dead called 'promession'. Promession is an environmentally friendly form of body reduction and burial.

The coffin will then be removed into a chamber where the body will be frozen to -18 degrees Celsius, in an ordinary mechanical freezer for between 24 and 48 hours. Once the body has cooled to -18 degrees Celsius, it is ready to be placed on to a moving platform that will transport the coffin through the process takes place within a sealed unit, the Promator. It begins by freezing the body in liquid nitrogen, which is a byproduct of the compressed oxygen produced for medical purposes. Once frozen, the casket and remains are shaken on a vibrating table below them, causing them to shatter into fragments. These pieces are then freeze dried to remove all the moisture from them. Metals are then separated from the remains using a large magnet. 50 -60 lbs of the organic powder remains.

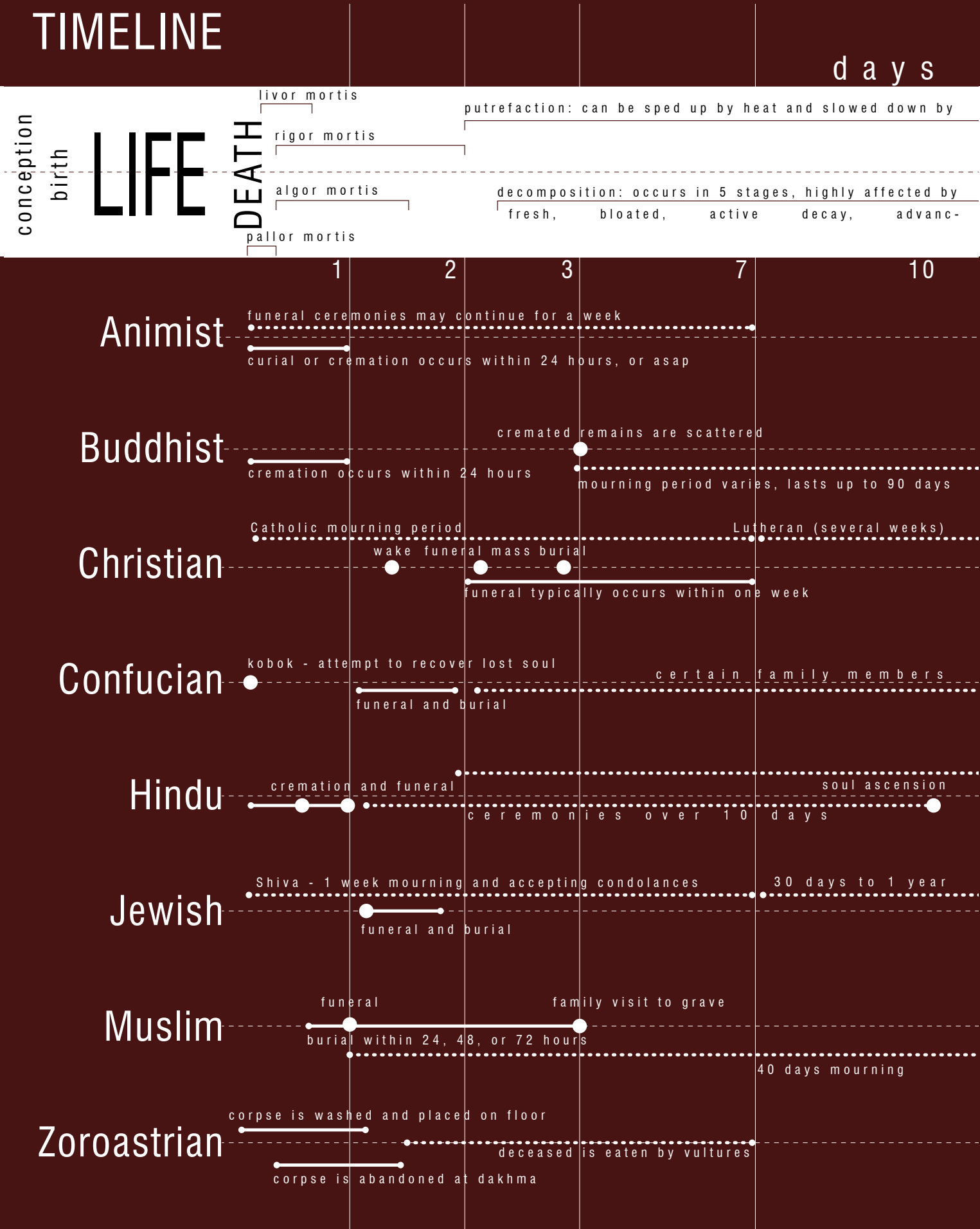
This is put into a biodegradable coffin so the completely organic remains can be buried in a shallow grave. A tree or other planting can be placed over top of the burial so that the organic remains can nourish new life as they compost over the course of the next 6 - 12 months.

Even direct burial is not as positive for the earth because of the mass and moisture content of the body left in it, preventing proper decomposition and causing rotting. Promession breaks the remains down to a point where composting without rotting can occur.

How has the type stagnated?

Spiritual belief has long been the greatest influence on the practices surrounding death and mourning; their influence has perpetuated traditions that have roots in ancient concerns. Each group has its own stipulations and prohibition A significant percentage of the global population no longer identifies with a particular religious practice – what are the potentials for a new deadspace to serve these people? What practices can appeal to the universal sense?

TIMELINE



m o n t h s

y e a r s

e t e r n i t y

cold

early phase fungi 1-10 months

late phase fungi 1-4 years

c a r b o n c y c l e

environmental conditions

-ed decay, dry, skeletonized

a n c e s t o r - w o r s h i p

burial may have to wait for a thaw

r e i n c a r n a t i o n

N I R V A N A

Baptist (60 days)

40 day memorial
Orthodox

1 year memorial
Orthodox

Heaven the
[purgatory] > rapture
Hell

m o u r n 1 y e a r - 2 7 m o n t h s

t r a n s m i g r a t i o n
o f s o u l

mourning period 10-30 days

monthly mourning for 1 year

s a v i o r a r r i v e s > ?

mourning

service to unveil
tombstone

D a r k n e s s

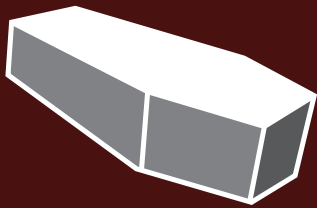
Heaven, Hell, Resurrection
@ end of the world

1 year mourning (widow)

Bridge > Paradise
o f

J u d g e m e n t > H e l l @ world's end:
immortality

BURIAL



CREMATION



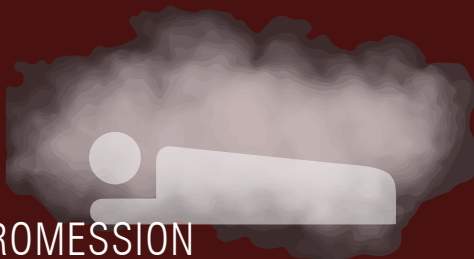
RESOMATION



SKY BURIAL



PROMESSON



Mortuary Options + Belief Systems

approx. %
of global population

6%



Buddhist

33%



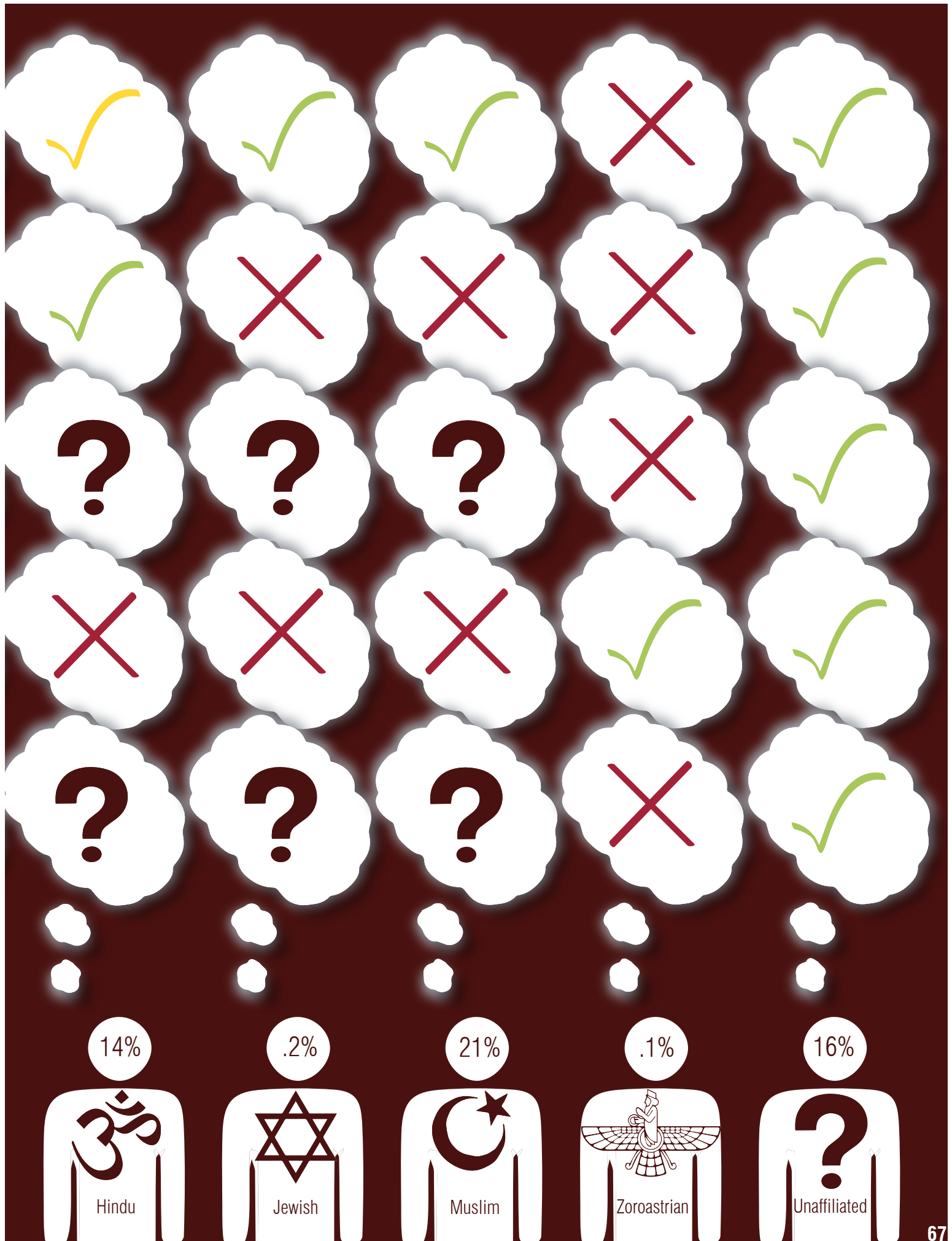
Christian

6%



Confucian





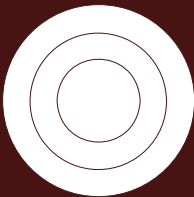
scale of deadspace

physical manifestations of funerary ritual came in all shapes and sizes:



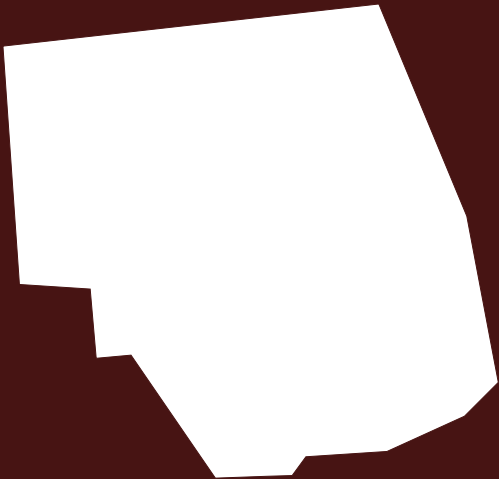
Pyramid of Cheops
2560 BCE

Area = 10,000 ft²
per person = 10,000 ft²



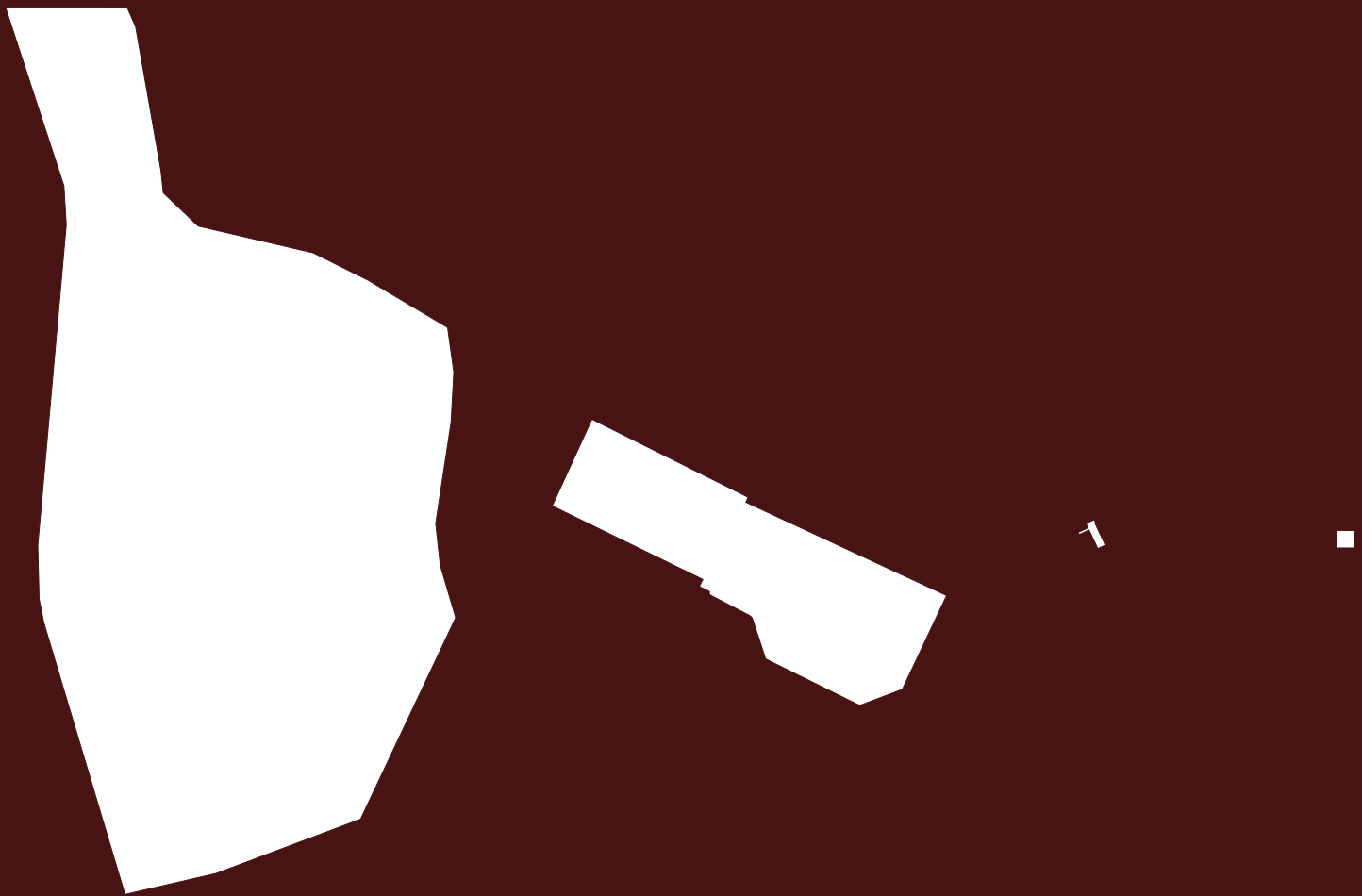
Cenotaph for Newton
1784 CE

190,000 ft²
190,000 ft²



Père Lachaise Cemetery
1804

.2 mi²
average: 2.7 ft²
buried: 15 ft²
cremated: 3 ft²



Skogskyrkogården
1917

1 mi²
buried: 18 ft²
cremated: 3 ft²

San Cataldo Cemetery
1971

.06 mi²
buried: 18 ft²
cremated: 3 ft²

León Mortuary
2001

22,000 ft²

funeral home

12,000 ft²

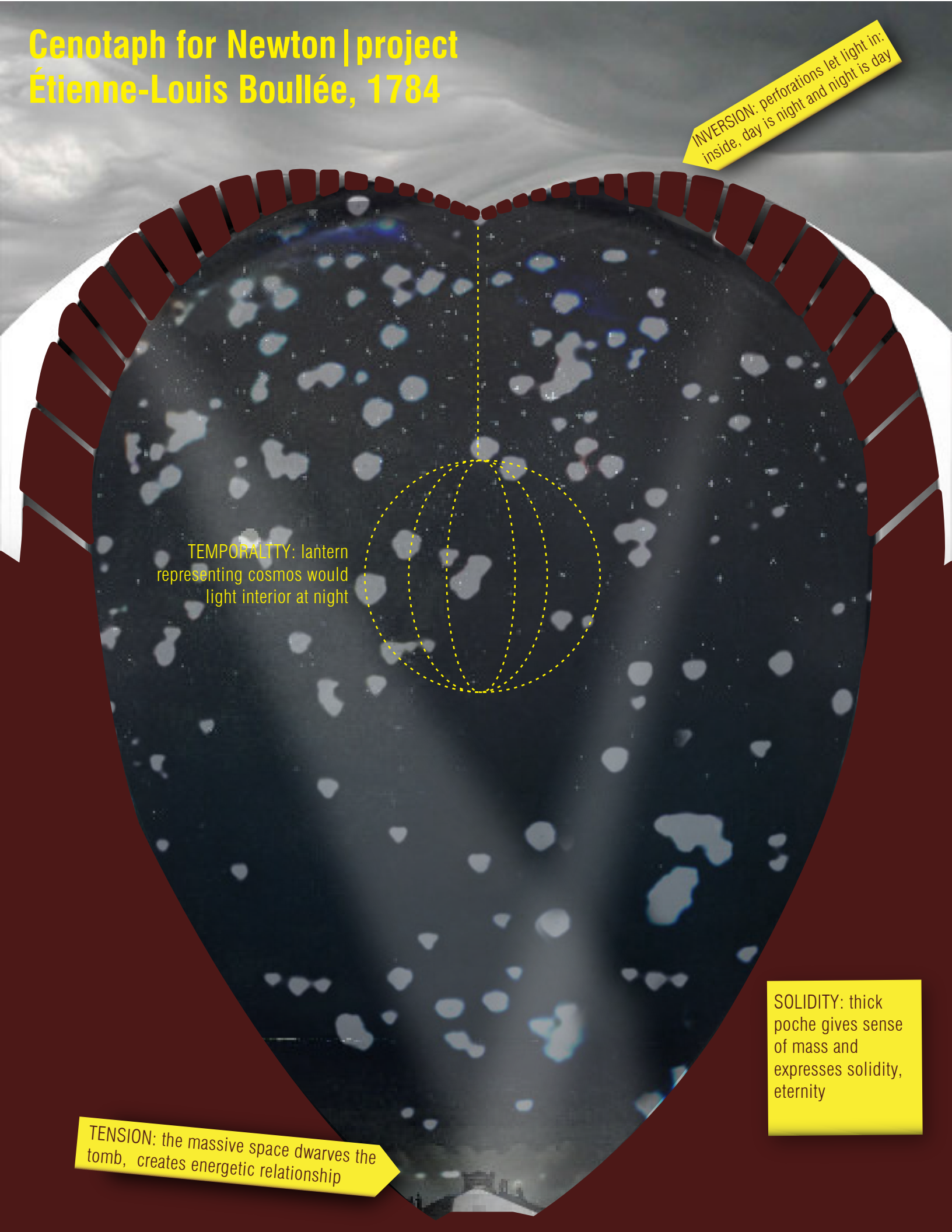
Cenotaph for Newton | project Étienne-Louis Boullée, 1784

INVERSION: perforations let light in:
inside, day is night and night is day

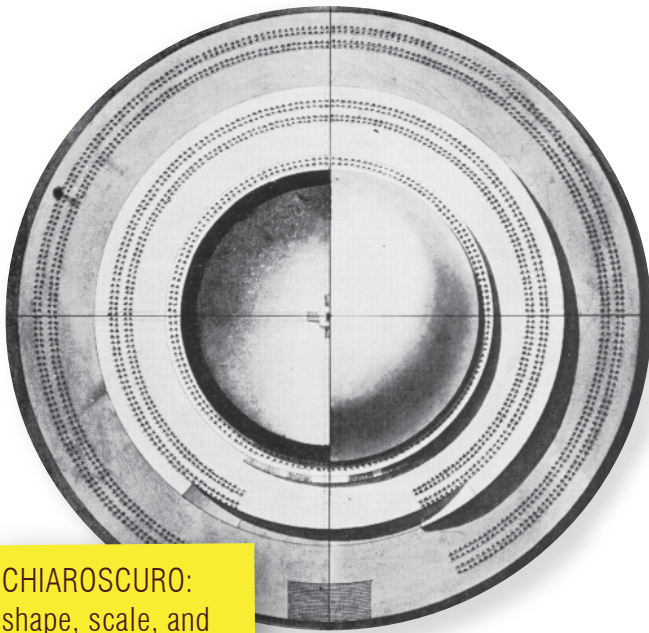
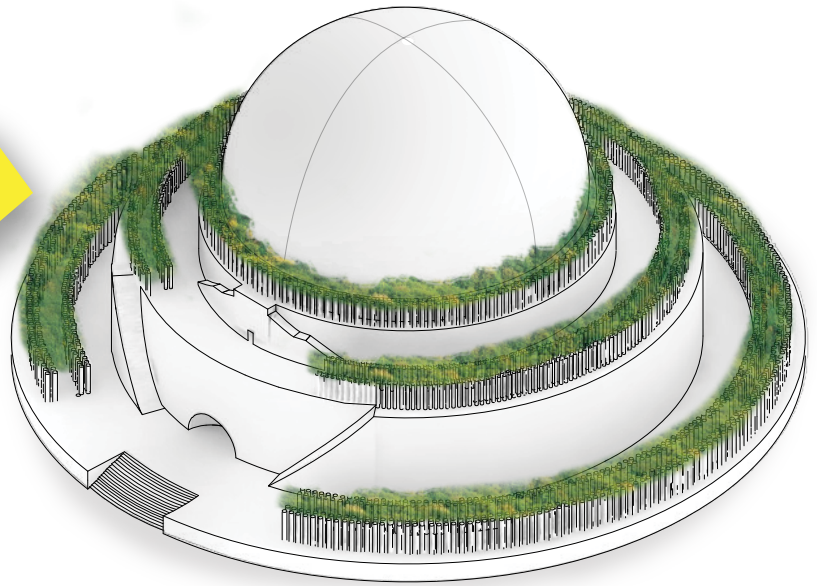
TEMPORALITY: lantern
representing cosmos would
light interior at night

SOLIDITY: thick
poche gives sense
of mass and
expresses solidity,
eternity

TENSION: the massive space dwarves the
tomb, creates energetic relationship

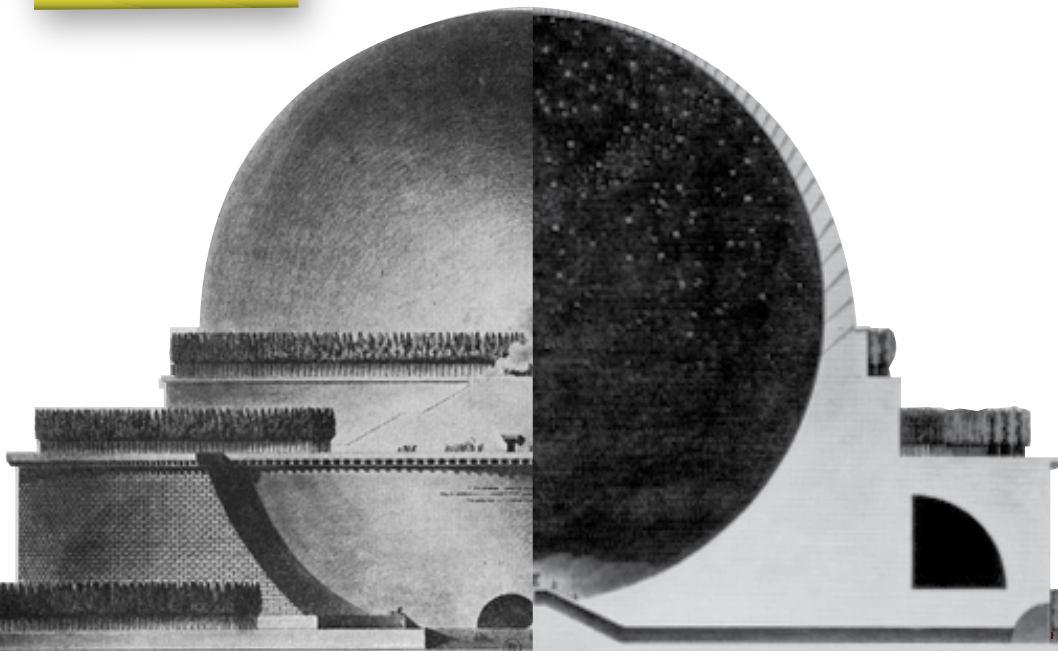


SYMBOLISM: flowers and cypress trees, concentric rings, as honorific links to mythology



CHIAROSCURO: shape, scale, and texture would interact with light in dramatic ways, creating contrast

“We gauge the impression that objects make on us by their clarity...The arrangement should be such that we can absorb at a glance the multiplicity of the separate elements that constitute the whole.”



490' tall sphere uses scale as a tool to influence perception:

communicates idea of universality through the manipulation of perspective

San Cataldo Cemetery | Modena, Italy

Aldo Rossi, 1971

BLEND: outer wall has repeated window motif like an office building or warehouse

The architecture of the city
is the driving force in
formmaking:

the relevant shapes are
found through analogue
and association

RECIPROCITY: the cone (mass grave)
resembles the factory towers of the city

BIOMIMICRY: rib-like columbaria make
up the body of the place, hold the bodies

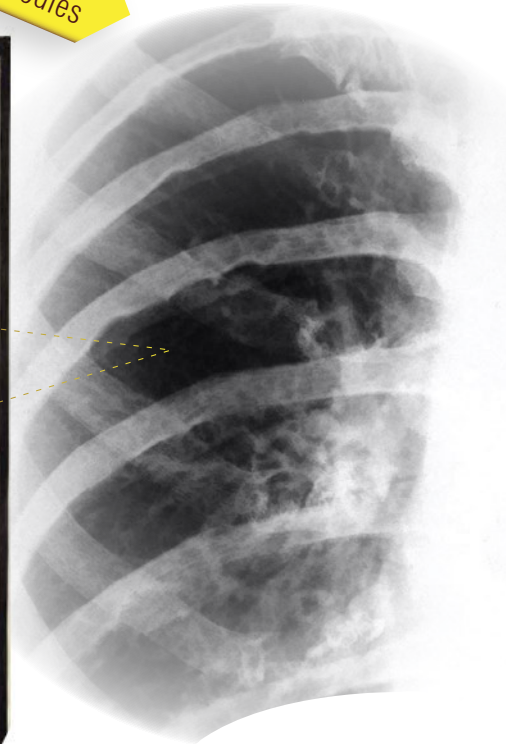
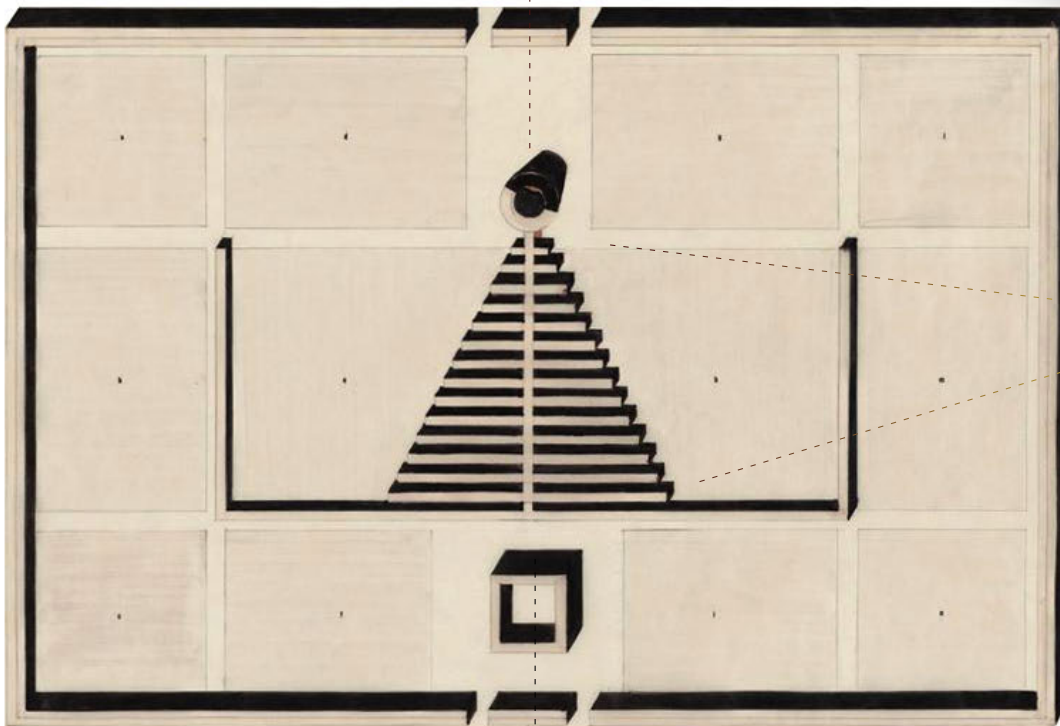
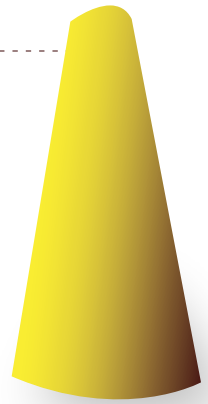
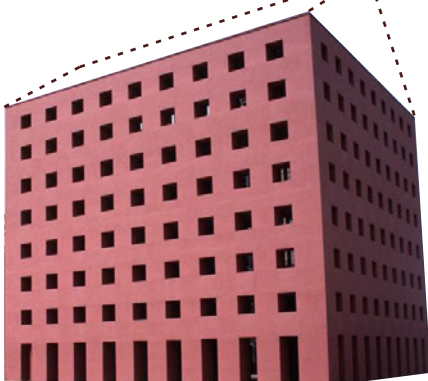


Fig. Rossi, Aldo. Cemetery of San Cataldo, drawing, 1978

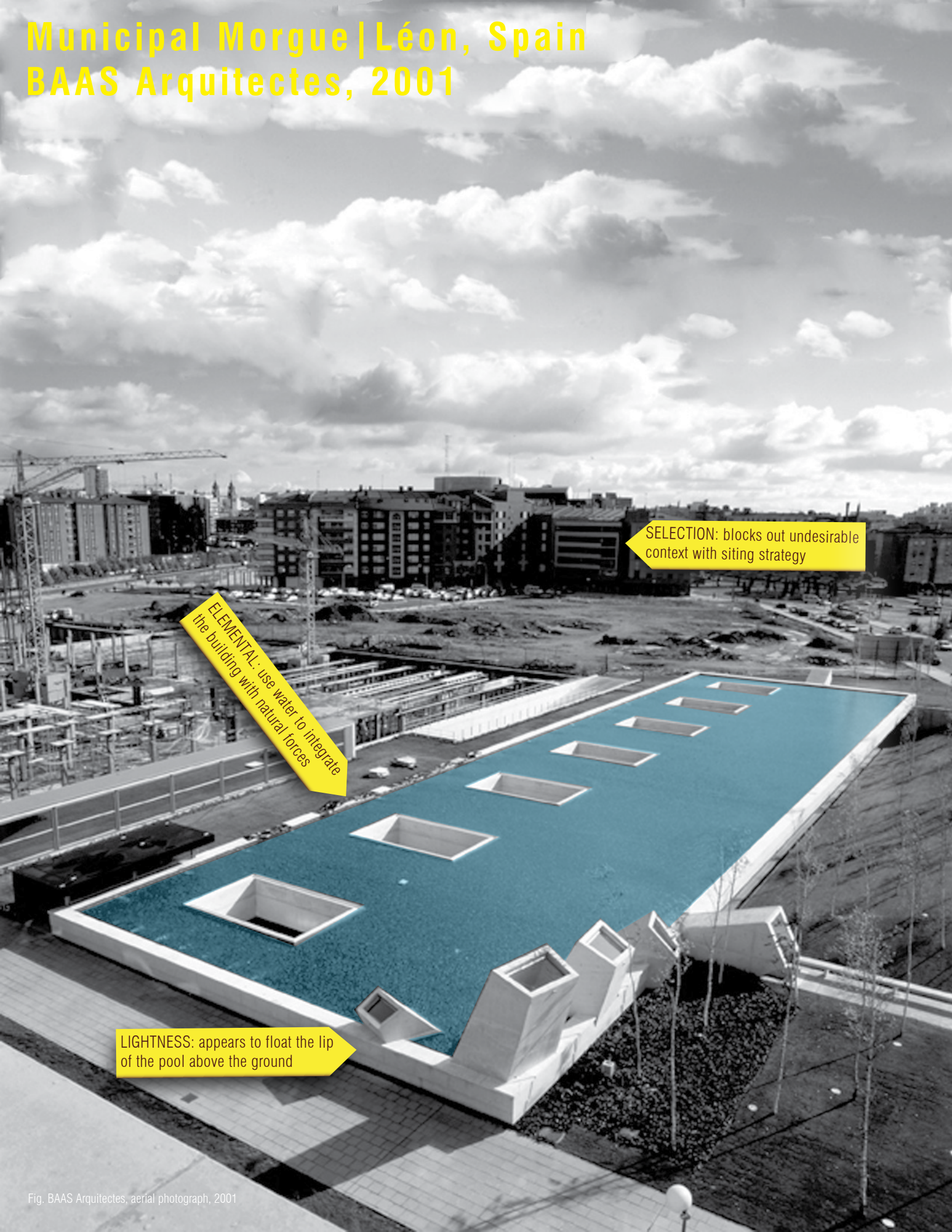
PROCESSION:
central axis delin-
eates procession
and initates
process

OMISSION:
ossuary evokes the image
of a roofless house; the
final home where all lose
individual identity



Municipal Morgue | Léon, Spain

BAAS Arquitectes, 2001



SELECTION: blocks out undesirable context with siting strategy

ELEMENTAL: use water to integrate the building with natural forces

LIGHTNESS: appears to float the lip of the pool above the ground

BIG MOVES:

despite the building's small size, it presents a grand facade - the sky becomes the face. The building IS the sky.

Sinking the main level below ground provides privacy in an urban setting and evokes a den-like sense. It IS the earth.

SCALE: provides interest in the grand scheme and for the individual

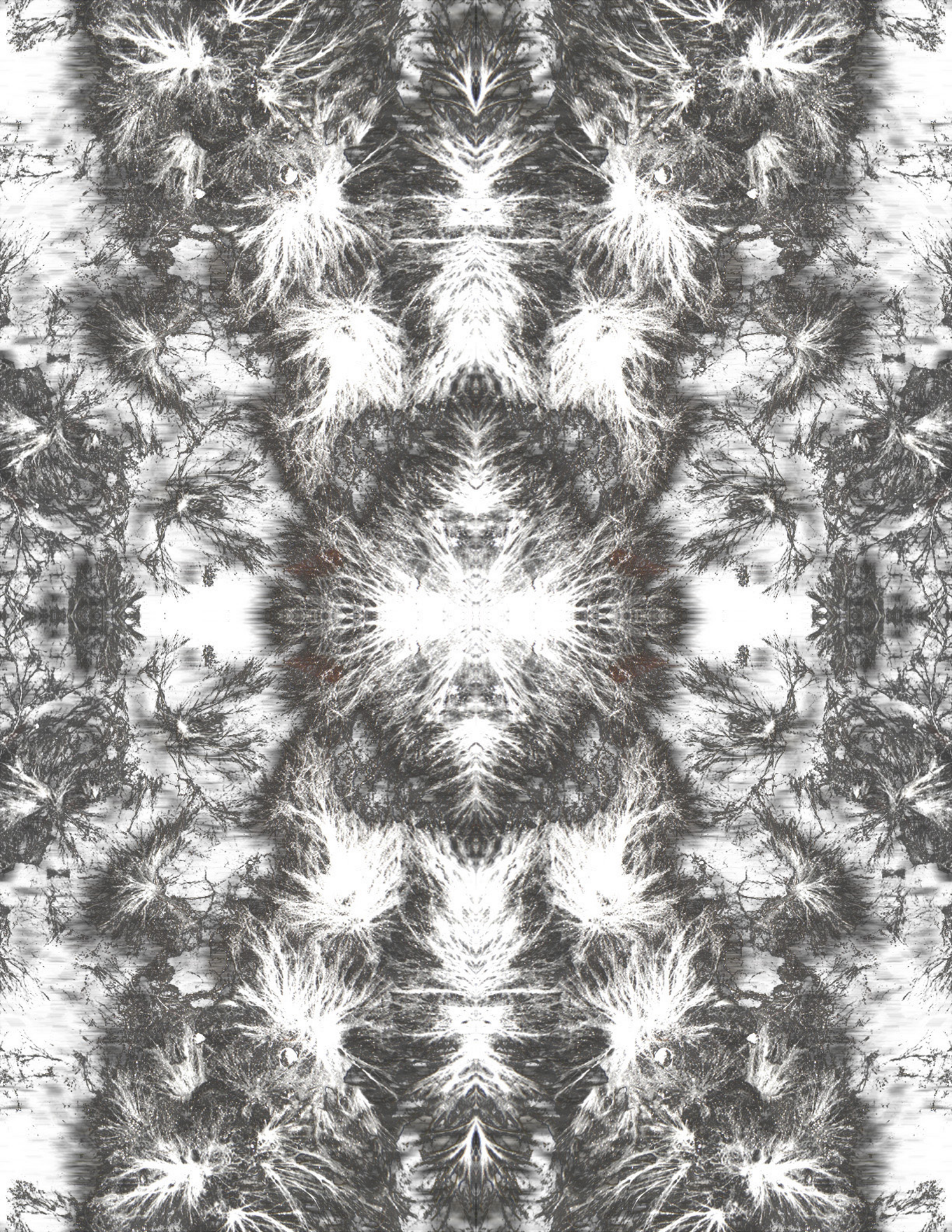
1

Elevation 0m

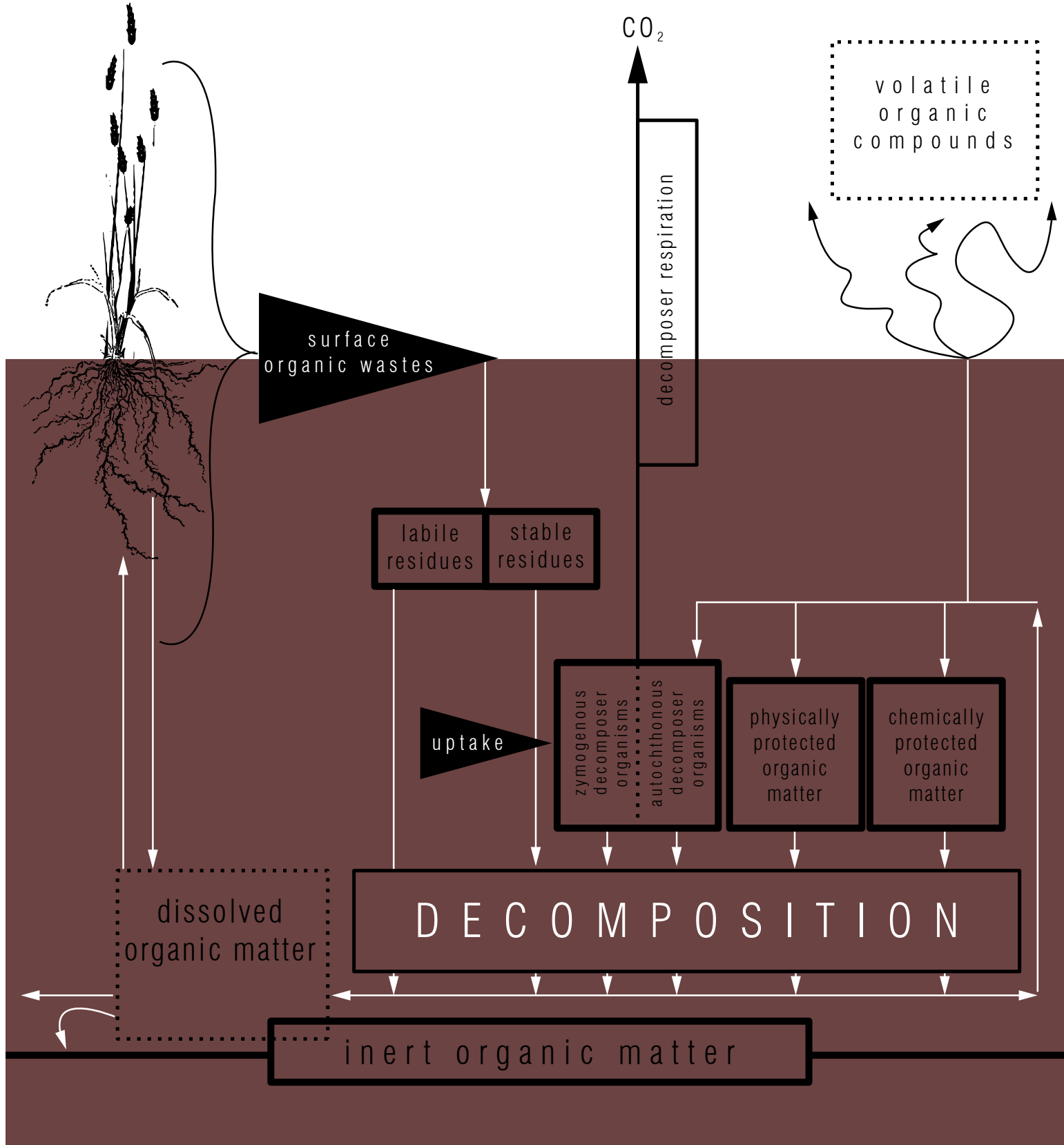
Elevation -3.5m

BURIAL: places mortuary rooms in the lowest level, below memorial rooms, lit with lightwells

Elevation -6.65m



IV . Environmental Context + Conditions

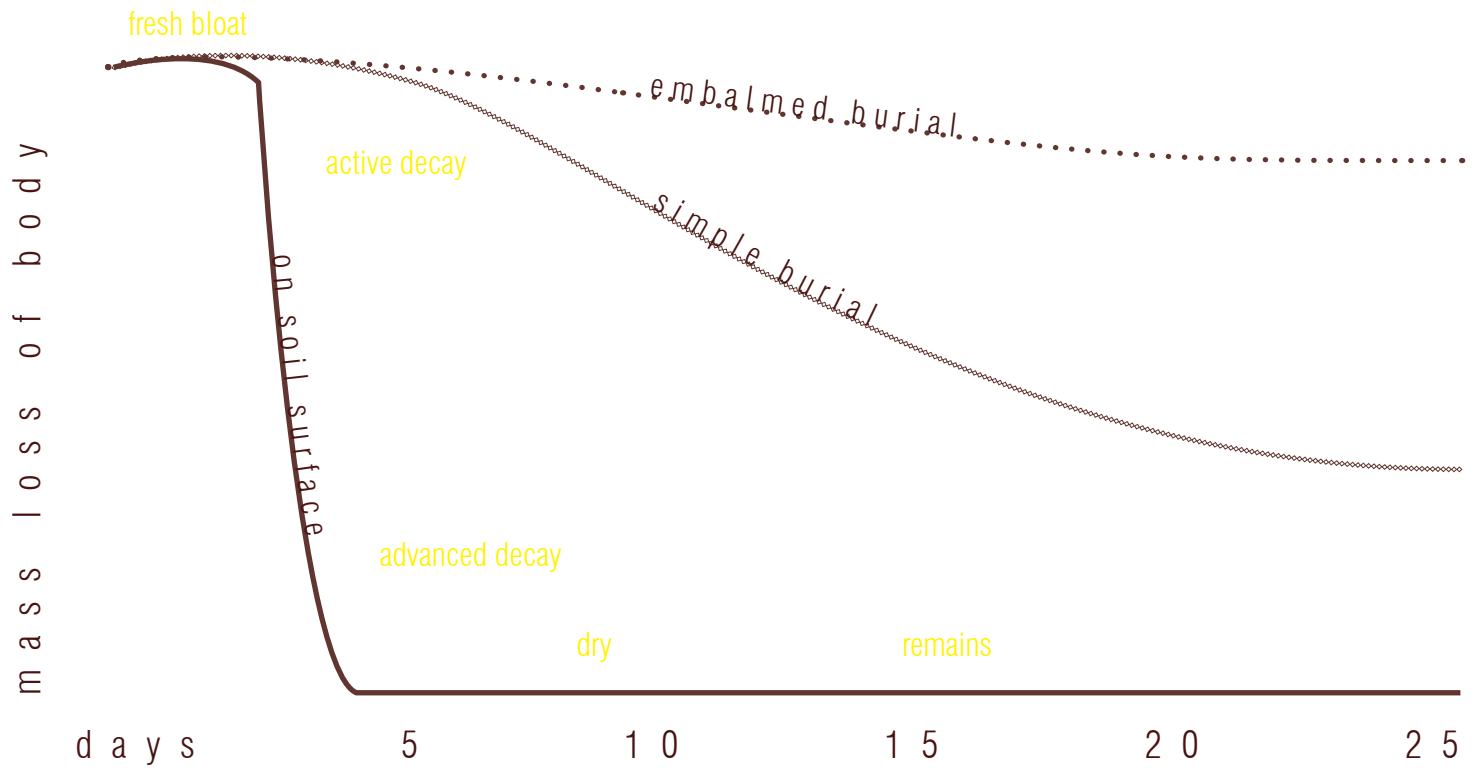


Environmental effects:

Each mortuary practice discussed re-enters human remains into the environment in a particular way, causing decomposition to occur with a certain timeline and in different stages. A typically ignored factor is that this is part of a larger system - the carbon cycle.

Current methods are not ecologically sound.

Burial:



Forensic taphonomy (*n.*) = the ecology of cadaver decomposition

The area around a decomposing corpse is known as a
CDI: Cadaver Decomposition Island

Its lateral and vertical extent morph over time, reaching a number of feet in each direction. The CDI can kill surrounding plants through chemical contamination in early stages of putrefaction, but encourages growth in later stages of decomposition.³⁶

Simple burial increases the decomposition rate by **8x** and the body is skeletonized in 1-2 years³⁷

In embalmed burial, in a casket, liner, and vault complete desiccation does not occur until 50 years after burial³⁸

Our dead do not completely decompose for *decades*.

Embalming used to mean to preserve the body with balm, tree sap, and spices –

now it means to inject with formaldehyde, glycerin, borax, phenol, potassium nitrate, acetate, and dyes and cover with cosmetics in order to “cure” the body of the appearance of death. Today, it is an almost exclusively American trend.³⁹

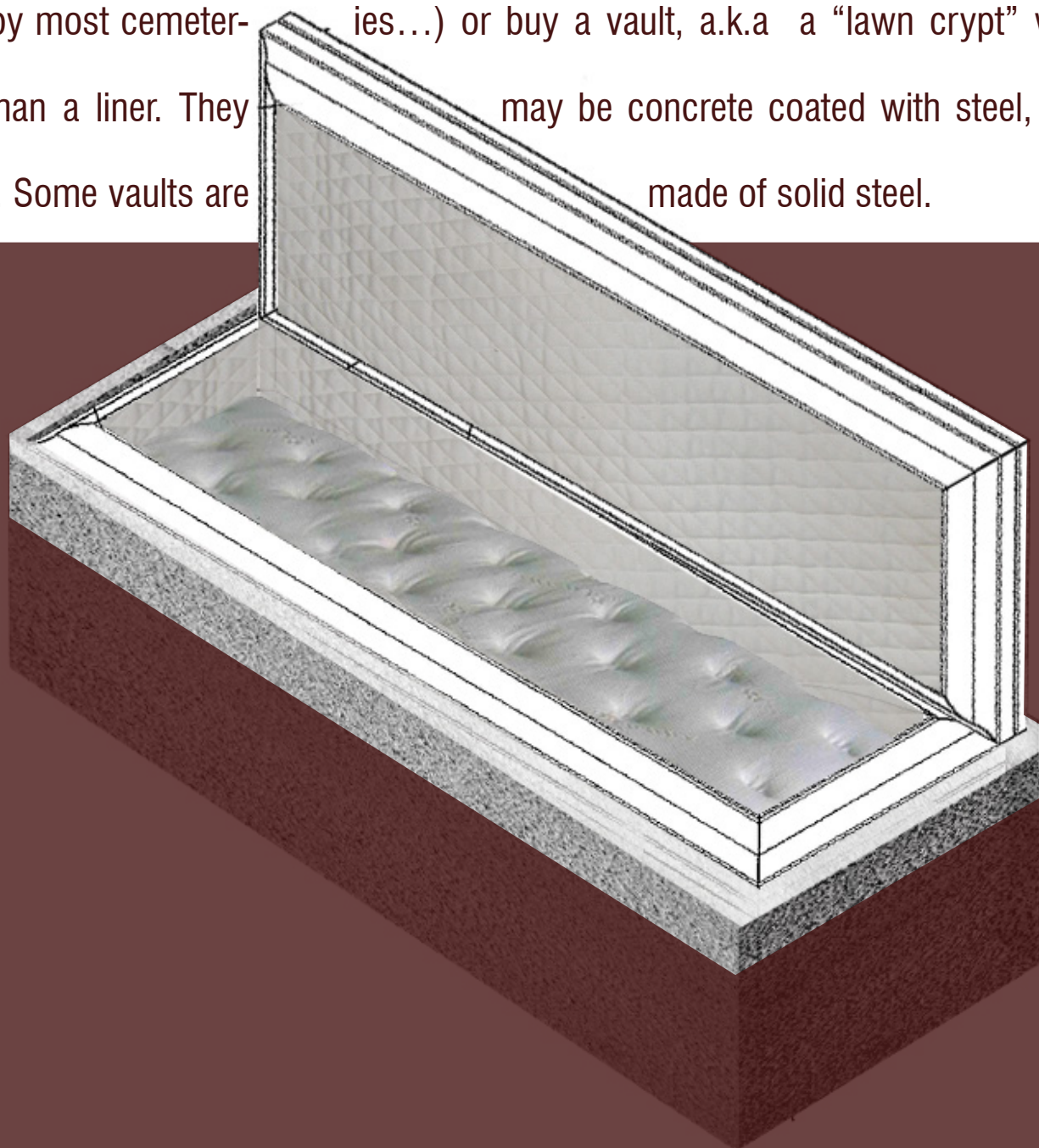
³⁶ Carter, 33

³⁷ *ibid.*, 40

³⁸ Mims, 122

³⁹ Roberts, 12

Caskets come in almost any material people will pay for: wood, steel, bronze, copper, stainless steel, plastic, aluminum, fiberglass, cardboard, fiberboard. They are available non-sealed or sealed (these often explode due to methane accumulation) or even “permeable-seal” which seems a lot like an oxymoron. For an additional fee, you can also buy “protection” for the deceased in the form of additional items. The first option is a grave liner: a bottomless concrete box with a loose lid – not that those are required by law (though they are by most cemeteries...) or buy a vault, a.k.a a “lawn crypt” which is sturdier than a liner. They may be concrete coated with steel, asphalt, or plastic. Some vaults are made of solid steel.



Our dead are shut inside casket, inside a plastic liner, inside a concrete vault, under a heavy lid...

cremation



uses **fire** to break down the body

releases greenhouse + smog-causing gases, mercury, dioxins

emits **400** kg of CO_2

uses **92** m^3 of natural gas

uses **29** Kwh of electricity

Releases a mercury into the air from *dental fillings*

Emission of mercury is of a concern because mercury in water and groundwater systems can be *very toxic* and is subject to biological accumulation

CREMATION RESULTS:

16% of mercury released into the air in the **UK**
33% of mercury released into the air in **Sweden**

results in CO_2 and about 1 gallon of gray ash made up of simple salts

resomation

uses **water and alkaline solids** to break down the body

emits no toxins or dioxins and far less CO₂ into the atmosphere

emits **50** kg of CO₂

uses **7** m³ of natural gas

uses **9** Kwh of electricity



Reduces a funeral's greenhouse gas emissions by approximately **35%** compared to cremation

Releases *no mercury* into the air; metals and plastics are easily retrieved from the remains after the process

RESOMATION RESULTS:

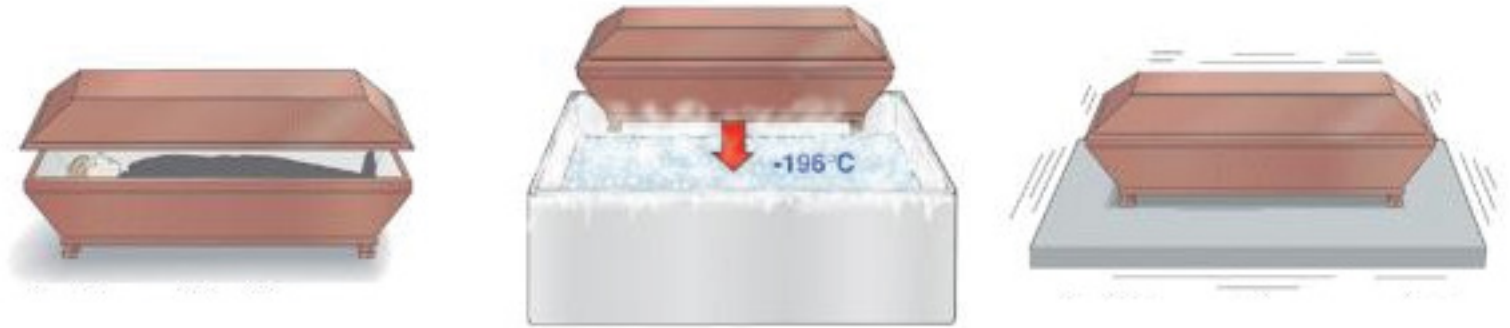
results in a sterile, DNA-free liquid and about 1½ gallons of white bone ash

promession

The body is placed in a temporary coffin and frozen to -18 degrees Celsius, in an ordinary mechanical freezer for 24 to 48 hours.

Once the body has cooled to -18 C, it is ready for promession.

It is placed on a moving platform that rolls the coffin through the process, this part of the process in the promator.



1

The body of the deceased is placed inside a temporary casket within 1½ weeks of death

The coffin is weighed to determine how much liquid nitrogen is needed to freeze the body to -196 C

The amount needed is 1lb liquid nitrogen per 1lb of body weight

2

The casket is submerged in a tank of liquid nitrogen, made from the air all around us

The cooling process takes 2 hours, during which the liquid nitrogen will evaporate into the atmosphere as nitrogen vapor

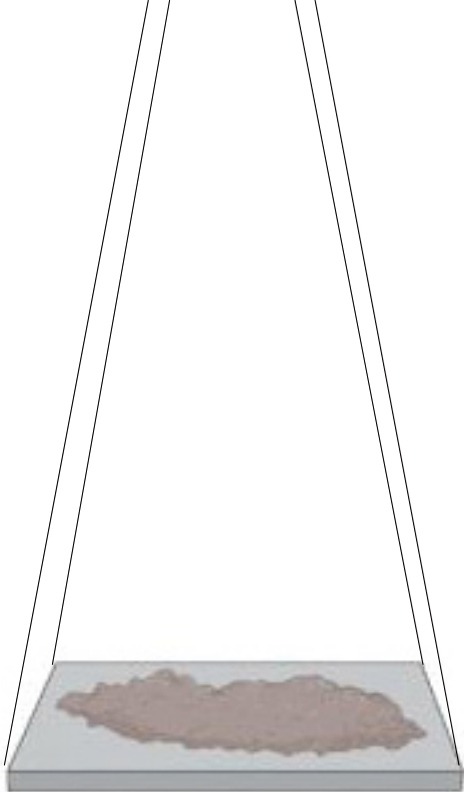
3

When the body has reached -196 C it is rolled onto a belt which gives off small 5 millimeter vibrations

The body and temporary casket crumble into a fine powder in about 60 seconds

Decomposition is a *closed natural recycling loop* from life form to life form. Burying the body changes the nature of its decomposition and instead, causes **ROT**.

A deep burial changes the process from **aerobic** to **anaerobic**. In anaerobic conditions, the body's own microfauna and enzymes cause autolysis, putrefaction, liquefaction and skelontomisation.



4

The powdered remains move into a vacuum chamber .

Here, clean water will evaporate and be dispersed into the atmosphere as natural steam.

The dry powder passes through an electrical current. Here, any metals are extracted and recycled.

5

The dry powder residue, weighing approximately 1/3 of the original body weight is transferred into a biodegradable coffin

6

The coffin is buried at a 20 in depth.

In 6 to 12 months the remains and the coffin will have become nutrients in the soil.

A plant or tree can placed on the grave to become a symbol of the person and a new form of life.

In deep burial, the body releases **methane** as it degrades. Embalming fluids can pollute the ground water during the **20-100 year span** of a body's decaying process. Rot is a slower, uglier process.

Nature suggests that we go back to the way that we originated from, to benefit the soil instead of causing **contamination**.

technology
has **DISPLACED** the
natural



technology
can **SAVE** the
natural

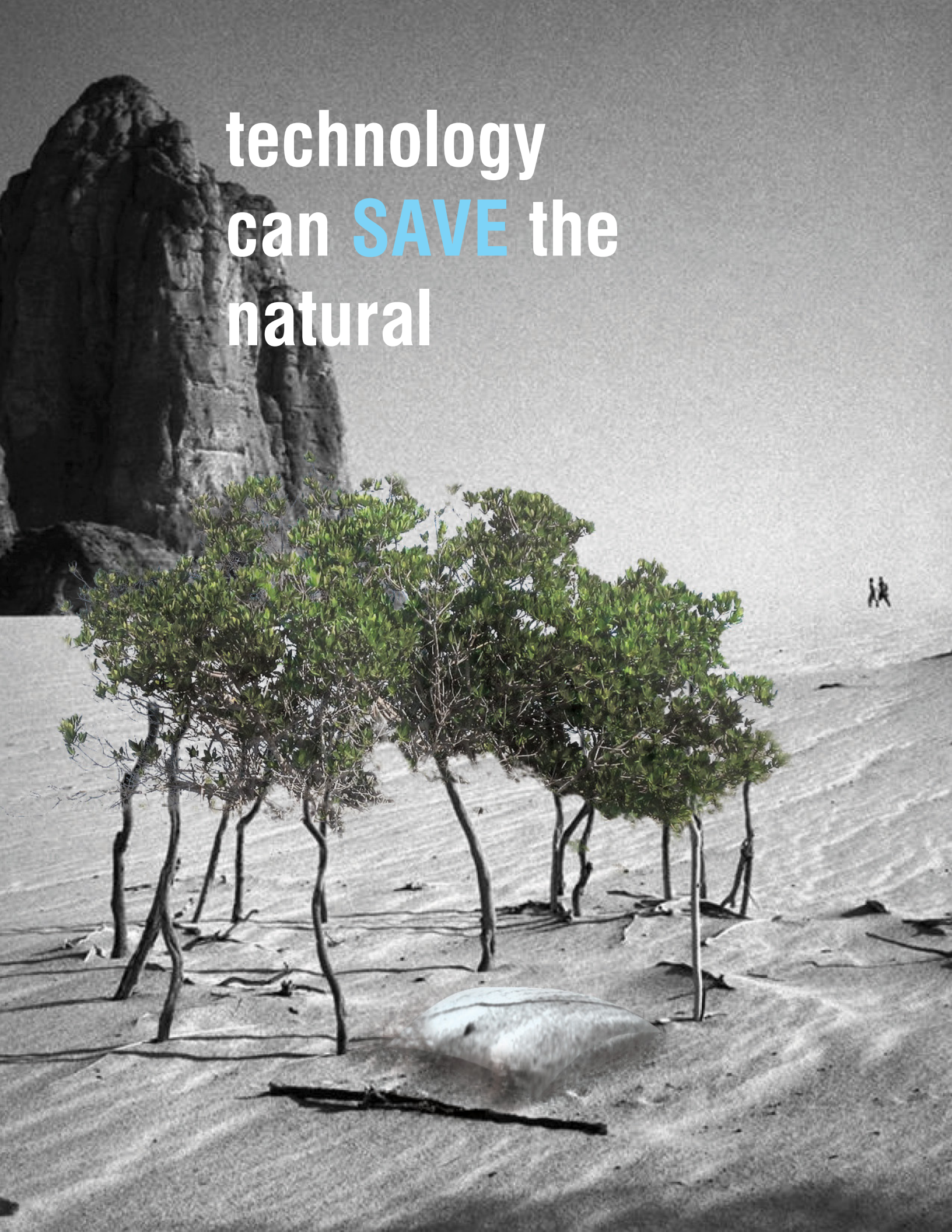




Fig. Hoover Dam, Black Canyon, CO, USA

V. PROPOSAL



The project I propose to address these issues is a conflation of two programs which have to potential to have a *strange symbiosis*:

mortuary facility for promession

an organic, low-energy funerary practice
which uses liquid nitrogen to process the
body

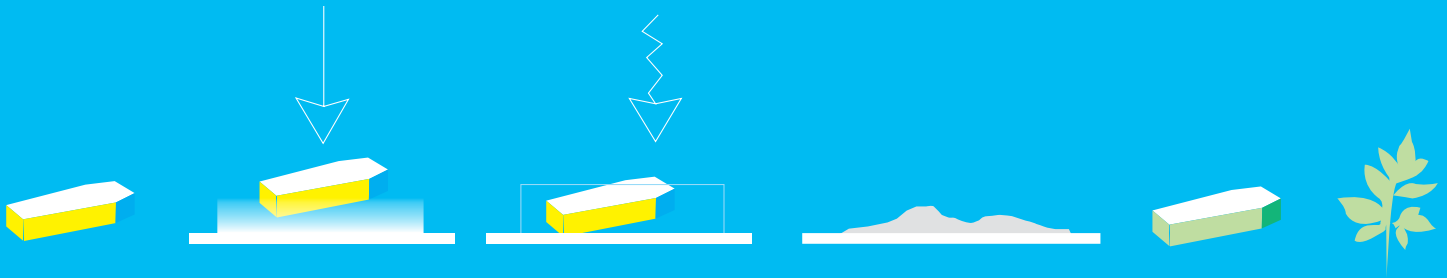
+

alternative energy production/storage facility

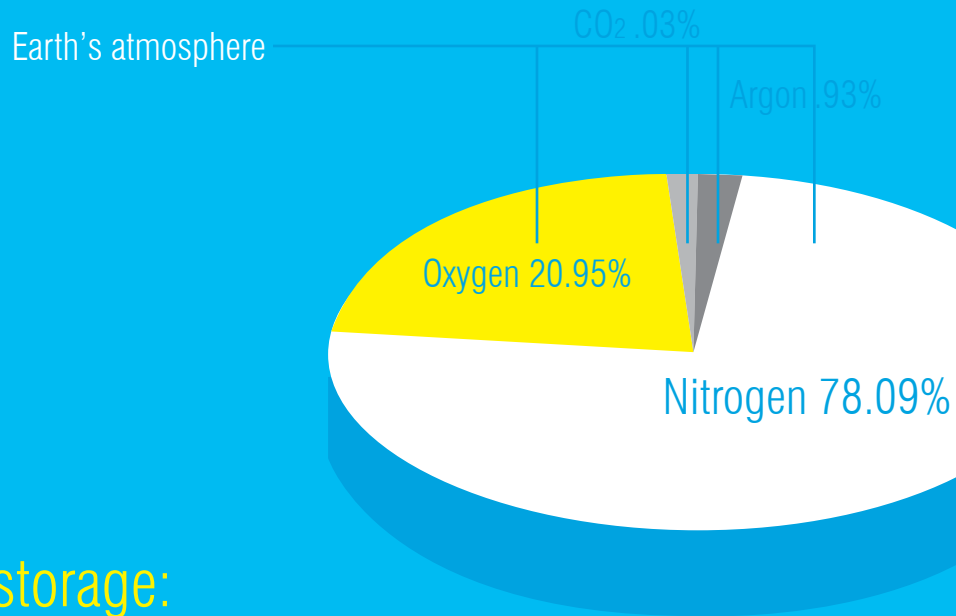
to store off-peak energy using a recently
invented process incorporating liquid nitrogen
batteries

=

Deadspace: LIVE



liquefaction



cryogenic energy storage:

uses *liquid nitrogen* from air as the storage medium

1. energy storage
2. convert waste heat to power from co-located industrial or utility plants
3. deliver cold as air conditioning, data center cooling, or refrigeration.

uses mature technology from air separation industry uses standard equipment

Deals with intermittent renewable energy sources:

1. wrong time electricity generation (too much or too little)
2. reduces need for idle spare capacity and avoids fuel cost fluctuations

Functions as a modular, low cost storage system which can be rapidly deployed.

The only exhaust is clean, cold air





Fig. Barrage Daniel-Johnson, Manicouagan River, Quebec





Fig. Run-of-the-river dam: Chief Joseph Dam, Bridgeport, WA, USA





Fig. Wind turbines overlooking the ocean





Fig. Water-sited wind turbines





Fig. Solar array.



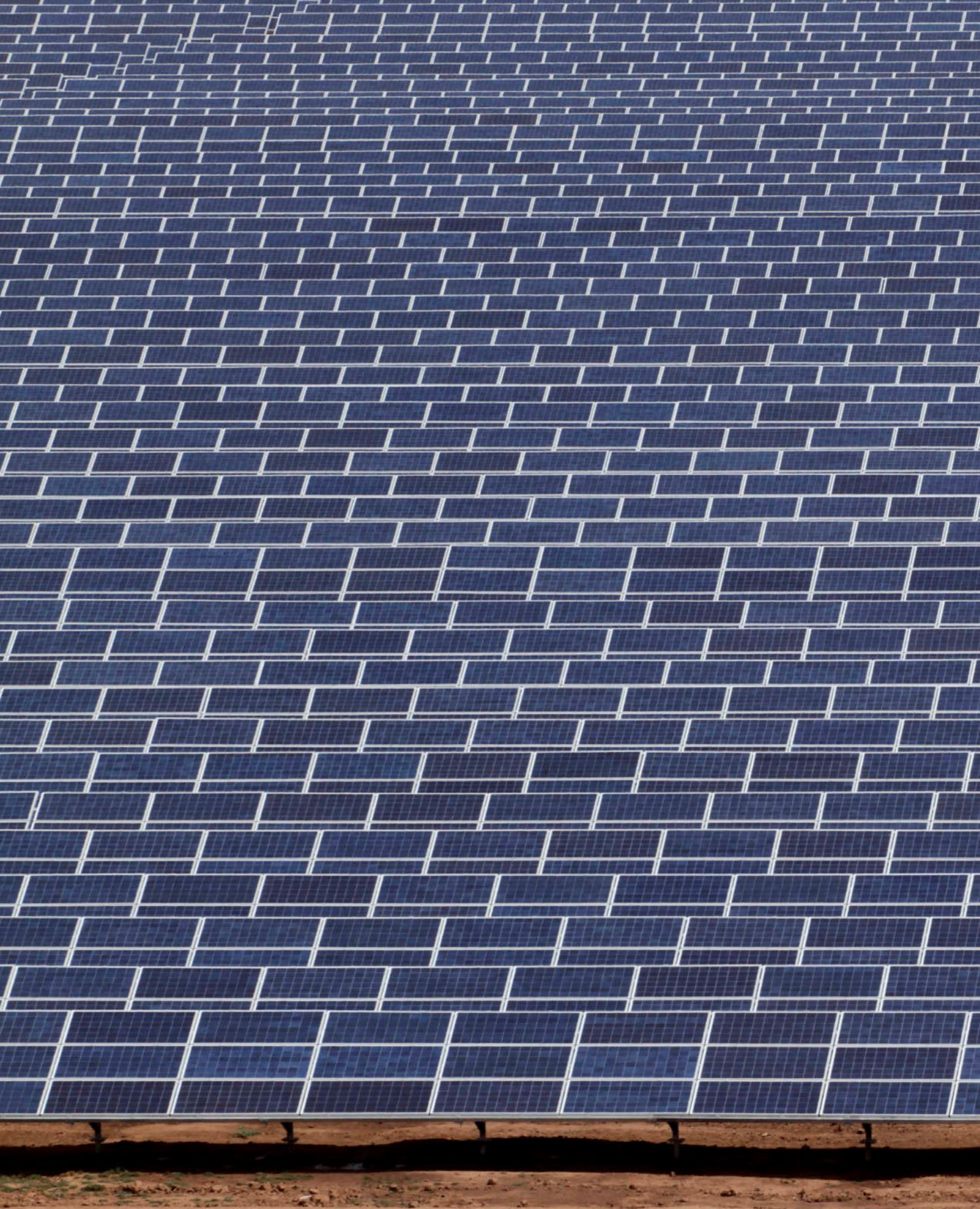
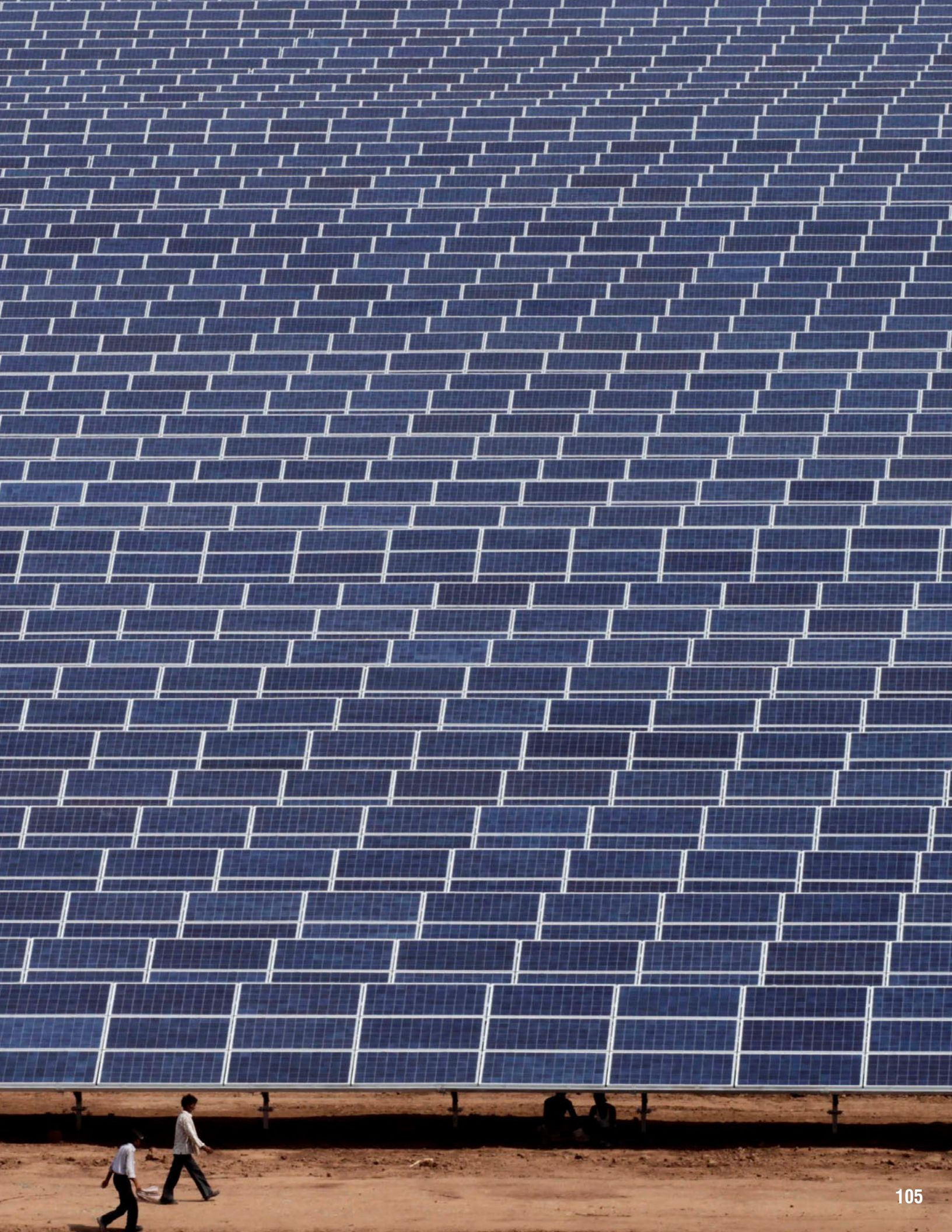


Fig. Gujarat Solar Park, India - largest in the world



conclusion

Deadspace is about the idea of perpetuity – assessing the recurring cycle of life and death, and imagining a facility which can help to sustain that relationship in a healthy way, indefinitely.

People will always need to use energy while they're alive, and they will always re-enter that cycle when they die, becoming energy for the growth of new life.

Conventional logic suggests that the two realms exclude one another, but **bright** / **dark**

dry / **wet**

sun/**moon**

life/**death**

– have need of one another.

**Coagulatio: the alchemical process of coming together, being made into flesh,
“getting real”.**

Reality (n.): our place of encounter with the world

Reality: we are killing the world.

Let's get real.

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I. Funerary Traditions of the World

Asia

Armenia:

Most people here are Armenian Orthodox; burial and the funeral occur in a nearby graveyard.

Azerbaijan:

The majority of people here are Shiite Muslims, but there are also Sunni Muslims. Typical Islamic burial practices are the norm.

Bangladesh:

Mostly Muslim (national religion), some Hindu and Buddhist. Chkma minority group in south are Buddhist; the Hindu and Buddhist minorities cremate bodies at crematoria and scatter the ashes over a river or bury them.

Bhutan:

People are predominantly the Drukpa; religion and government are intertwined, led by Lama monks. Funerals begin and finish with recitation of sutras and music. White flags (darshin) are displayed outside the deceased's home in a number to match their age. Graves are only for Lamaist monks; all others are cremated in an outdoor setting and scattered on a river. Some ashes are made into a ball (tuatua) which is then placed in a Buddhist pagoda (cholten). In cases of traumatic accidental death, bodies are buried in very deep graves. All ceremonies here are typically observed by the whole community.

Brunei:

Most people are Malay, who practice Islam. Most funerals in the capital take place in mosques. The Bisaya minority are animistic Muslims. They fear dangerous spirits of the improperly mourned.

Cambodia:

Most people follow Theravada Buddhism. The family prepares the body for funeral and a monk (bhikhu) comes to recite sutras. Food is served. Funerals

mainly take place at a Buddhist temple. During funeral, a string is tied from the deceased's hand to the monk's hand. People home on the day of the death are not to attend the funeral. Most people choose cremation, but wait for an auspicious day, sometimes a year later. Christians, Muslims, and deaths of unnatural causes, such as suicide, receive burial. The Khmer predict their deaths with a book (Kampi) and hold a ceremony (hao-porn) if any hope for survival remains or (ke ayo) if no hope remains. The deceased is dressed in white and put in a casket. A monk holds the funeral, and after three days, the body is cremated. During cremation, the body faces west, and following it must face east (play ruk). Ashes are placed in a bone box, or for the wealthy, other options (caedy or ruk kamoi). Their graves use a roof and are in a graveyard (kuk kamoi).

China:

In urban areas, deaths are reported to the government and the people's commune (renmin-gongsh) remove the body in a micro-bus to a government-run crematorium. The funeral consists of eulogy, prostration three times, and a farewell message, then the body is removed for cremation. Mourners then burn flower wreaths and paper money and light fire-crackers. Cremated remains are kept in a niche.

In many rural areas, they are buried instead. The family places the body with feet facing the entrance, washes the body and dresses the deceased in fresh clothes. Coffins are often painted red or with flowers. Volunteers carry the coffin to the cemetery with a mourning flag and firecrackers. Mourners wear black bands. Burial occurs little by little over the course of several months.

Grave position used to be determined by yin-yang geomancy but was reformed after government charge against religions; new basin areas were designated for burial sites since 1956.

Cremation in designated coastal areas has been required by law since 1985, and cremation has been the officially encouraged choice for all since 1995.

Hong Kong:

Funerals most often take place in a funeral home. Caskets are often displayed in the home before the funeral due to their lavish cost. If buried, the site is in a cemetery selected through geomancy, but many choose cremation. Often, bod-

ies are unearthed after 5 years; the bones are washed, and reburied elsewhere.

(See Tung Wah Coffin House aka "Mansion of the Dead")

Tibet:

sky burial, see India Parsee.

India:

Practices vary greatly according to region and religion.

Hindu:

Body is wrapped in a white (males) or red (females) cloth and put on a funeral bier. Mourners carry the bier to an outdoor crematorium, where they put water from the Ganges into the mouth and anoint the body with it. The body then goes onto a byre covered with flowers and is blessed by a Brahmin. The family circles the byre five times and sets it aflame. The ashes are scattered over a river. For a young child, the body is sunk with a large stone into a river without cremation. Sati (wife burning with deceased husband) has been banned since British rule in 1828. Mourning ceremonies take place for ten days and then each month for a year.

Muslim:

Body is purified, dressed in white, and placed in a casket. The funeral takes place in a mosque or open space; women cannot participate in the ceremony. After, the body is removed from the casket and buried with head facing Mecca. Family visit the grave after 3 days and after 40 days.

Parsee:

Body is bathed and covered in white cloth except for face. The corpse is placed on a dirt floor because it is seen as defiled, then carried to a place (Silent Tower of Dakhma) for "sky burial". This is because internment is seen to profane the earth and cremation is seen to sully fire. The body is laid with head facing north on an iron platform and pictures drawn around it with an iron rod. The procession to the tower is led by one member (nesasusara) who carries the body up, removes its clothes, and leaves it to be eaten by vultures.

Sikh:

Hair and beard must be kept uncut, and the dead are given a comb, ring for the

dead are given a comb, ring for the right hand, dagger, and a shirt. Burial or cremation is considered acceptable.

Buddhist:

Mourning lasts 49 days and each day an ascetic monk (ngappa) recites from the Book of The Dead. The corpse is placed in the living room, then taken under a five-color flag (Dharcho) in procession by male mourners on the day of the funeral to an outdoor crematorium. Three days after cremation, the ashes are taken to a remote place by family members and scattered, often over a river. Sometimes ashes are set in a floral wreath and ceramic dish, set aflame and afloat on the river.

Indonesia:

Predominantly Muslim. The deceased's jaw is tied shut with string, arms are crossed, and the body is laid on a bamboo mat with head facing north. The body is bathed and wrapped in muslin; head, chest, and feet are tied with string. Coffin is carried from the house by men; women do not go to the graveyard and children do not see the body. The procession is led by the one holding the gravemarker (pointed for men, rounded for women); flowers and rice are scattered along the route. Bricks or rocks are placed on the grave, and marker at head. The wealthy often hold funerals at mosques. After 1,000 days a memorial service is held and the temporary mound is replaced with a tombstone.

Borneo:

Unnatural deaths (i.e. at birth, in battle, by accident) are believed to incur harmful spirits unless rituals are performed, and their graves are separate from the others.

Sumatra:

Bodies are often buried in a remote location with no marker. Platform burial is also common (where a body is left out for animals).

Bali:

Body is moved to the center of the yard and placed on a stand (asagan); neighbors and family wash the body and flowers are put behind the ears. The body is wrapped in white cloth and tied with rope, then carried to a building and laid with head facing west for a purifica-

tion ceremony. The body is carried to the graveyard and often cremated later. Wealthy families often have a coffin in the shape of an ox before cremation. Cremains are placed in a coconut shell and set into the sea.

Japan:

Nearly all bodies are cremated; most people follow Buddhist traditions. A wake occurs the night before the funeral at home, in temple, or mortuary. During funeral, mourners wear "subdued" clothing and bring monetary offerings (koden). Incense is burned at an altar if a Buddhist service, sakaki sprigs if it is Shinto, and flowers are placed for a Christian service. Crematoria are open daily except on tomobiki (day of tailing friends) when funerals are seen as inauspicious. Mourners pick bone fragments from cremains with chopsticks and place them in an urn for burial. Funeral homes and memorial parks have sprung up everywhere and provide elaborate services.

Kazakhstan:

People here follow Russian Orthodox Christianity or Islamic traditions mixed with pre-Islamic beliefs. The Muslim Kazakhs build a yurt particularly for the funerary service, which stands until the burial.

Kyrgyzstan:

The residents here are Sunni Muslims or Russian Orthodox Christians. They have fairly typical burial customs according to their religions.

North Korea:

Burial in cemeteries is common, with elaborate headstones if within the family budget. In urban areas, cremation is more prevalent. The funeral lasts three days and mourning lasts a year. Party officers are buried in the mausoleum of the Revolutionists.

South Korea:

Cremation has become very common, replacing burial on hillsides in the Confucian tradition. Traditional groups (taesang) are often organized to assist with the funeral; they go to the house, pray, offer money and gifts, prepare the funeral, and arrange transport and burial. The deceased's legs and arms are straightened, burial clothes put on, and a white cloth is put over the face. The body is put in a lacquered wood box after

a 24 hour wake and the box is wrapped in paper and tied with rope. A farewell service is held in front of the house or in a church for Christians. The procession to the grave is as follows: photo of the deceased, the casket, and the mourners. The body is buried and covered with lime. The mourners return to the house and lament loudly there.

Many graves are mound-type with tombstones at the front.

Laos:

In most of the country, the relatives wash the body and place coins between the teeth if they can be spared. The body is wrapped in white cloth and put on a banana tree log. A monk recites sutras, and then the funeral festivities commence for seven days, with death seen as entering nirvana. The body is then brought to a shack out in the fields to await cremation. On an auspicious day, the cremation pile of wood is readied and the body is cremated with mourners watching. Ashes are gathered and placed in an urn for burial at temple.

In the mountains, the Lame wait three days and nights before lighting a bonfire in front of the house until the funeral ends and the body is buried on the mountain.

In the capital city, Vientiane, the body is cremated at a temple.

Malaysia:

Islam is the national religion, but Chinese citizens tend to be Buddhist and Indians, Hindu. There are also Christians. Muslims hold a service in the home; the family washes the body and it is wrapped in a white shroud and placed in a coffin. The coffin is carried to the mosque for prayer, then to the graveyard for burial as soon as possible.

Buddhists hold lively funerals with musical processions to a temple-like gathering place called a Social Hall. They often cremate the body and lay the urn in temple niches.

Maldives:

Residents are mostly Muslim. Each island has a mosque and a government-paid official who oversees funerals (katibu). The katibu blows a conch shell to announce a death. The deceased is washed, tied and shrouded according to Islamic law and put in a coffin or leaf box. Mourners dig the grave and lay the corpse in, facing Mecca.

Mongolia:

The traditional Lama model was to hold a funeral on Monday, Wednesday, or Friday and then carry the body to the graveyard, where it was left for wild animals to eat. Today, graveyards are placed to the south of towns on a hillside. Bodies are buried with the head pointing south and mourners circle the grave three times, pouring fermented horse milk around the grave.

Myanmar:

Most people are Buddhist. The deceased is washed and the lower half of the body is wrapped in cloth; their best clothes are then put on inside-out and the body is placed on an altar before the home. The wake lasts several days, and then the body is put in a coffin and carried to the graveyard on a stretcher with a procession of chief mourner, monk, a band, and mourners. The coffin is shaken three times in the grave before being buried. The wealthy then often cremate, and then bury the remains in an obelisk. In poor areas, bodies are cremated in fields or buried simply.

Nepal:

Hinduism is the national religion, but many are Lama or Buddhist. In Hindu ceremony, the body is unclothed and covered with firewood. A piece of ignited wood is put in the mouth, and the deceased is cremated. Ashes are scattered over the river. In Buddhist tradition, the funeral takes place in a temple accompanied by music. The body is cremated and the ashes are kept in an obelisk (panso). The poor often use water burial instead, to avoid the cost of firewood. Sky burial was common at one time, but is now outlawed.

Philippines:

Funerals in town are often overseen by a mortuary or funeral home, but in rural areas the family takes care of services. Funerals are typically held in the home, church, or mortuary within a few days of death and are overseen by a member of the church. Catholic ceremonies are more dignified and elaborate, while Protestant services tend to be simpler and involve singing of hymns. Many funerals are paid for through gambling

winnings. The body is then transported in a hearse to the gravesite or cremated; Protestants and the wealthy prefer cremation.

Singapore:

Funerals vary greatly according to the religion of the individual. Buddhists cover religious items and glass in the home with white cloths; they spray the body with stream water, place pearls and copper coins in the mouth, and cover the face with a white shroud. The body is placed in a lacquered coffin packed with silver threads and gold paper. A hearse leads the procession to the crematorium and the ashes are interred. Muslims rub the body with camphor and sandalwood, wrap it in white cloth, and place a pair of scissors on the stomach to protect from evil spirits. Incense is burned for three days. Muslims and Christians typically bury the dead, while Buddhists and Hindus typically cremate. Scattering of ashes into water is prohibited.

Sri Lanka:

Most residents are Hindu or Buddhist. The day of death, the body is bathed and wrapped in white cloth and laid under a canopy facing west. Coconut oil lamps are lit. Buddhist funerals are held in the home or at the crematorium. Hindu funerals are held at the crematorium. In rural areas, these are temporary structures in fields. Some poorer people prefer burial. Urban areas have funeral homes. Funerals are typically not scheduled on Tuesday or Wednesday, as these are considered unlucky. The funeral procession turns right three times to confuse wandering spirits. Ashes are scattered over a river or buried in a graveyard.

Taiwan:

The deceased is carried to a mortuary and a religious official is called. During the funeral, paper money, clothing, and a model house are burned so that the deceased may use them in death; there is a special room for this in the crematorium. The body is buried in a public cemetery and then uninterred several years later, bones cleaned, and reburied on a mountain, or they can be cremated and placed in a temple niche. Funerals for those

over age 80 are considered happy and use the color red rather than black. (see Hon-chi San-tzan, Tau Yuen Country)

Tajikistan:

Burial customs here are very similar to those in Kazakhstan. Burial occurs on the third day after death, and women do not attend.

Thailand:

Most are Theravada Buddhists, but there are also Christians and Muslims. The family bathes the body in hot water and places it in a casket. The wake is held on the day of death in the home or at temple. Funerals are typically held in a Buddhist temple, where the corpse is cremated in a pagoda-style facility on the grounds or in an outdoor crematorium (fura-mane). Mourners help light the fire. Ashes are scattered or kept in an urn in a pagoda-style structure. Funerals take place later. Only a small Chinese minority bury their dead. Mountain tribes often simply leave their dead in trees or on wooden platforms to be eaten by the birds.

Turkmenistan:

Native Turkmen follow Sunni Islam and Russians are Orthodox Christians. The Muslim dead are buried on the day of death and the funeral occurs three days later in the home of a neighbor. Orthodox funerals differ in that they are held in a church.

Uzbekistan:

People here are not often devoutly religious, but they follow many Muslim religious ceremonies. A fraternity called Makhallya or Kishlak assists with funerals. The body is wrapped in a 7 meter shroud, white for an adult and red for a child; then it is buried, with only men allowed at the ceremony. The funeral takes place on the third day. Graves are typically simple mounds of soil. (See Urgenchi region, where soil is contaminated with salt: burial is in concrete Quonset-hut style tombs)

Vietnam:

Most funerals are held in the local community hall and bodies are typically buried.

Oceania

American Samoa:

Funerals are held in the yard of the home of the deceased. The bodies are then buried either in a village burial ground or in a grave near the home.

Australia:

Families most often contact a funeral home. Mortuaries are privately owned but operate under the auspices of the local government. Burial typically occurs within 2 days of death and embalming is uncommon. More than 50 percent of the dead are cremated, but Catholics and Jews typically prefer burial.

(See Crowery Cemetery, Bondi beach)

Aboriginal tribes have many differing customs but typically practice burial with subsequent exhumation. The bones are then placed in a tree bark wrap and put in a cave.

Fiji:

Official language is English and many residents are Methodist, Hindu, or Muslim. Ceremonies are typically held in a church and rarely use mortuaries. Flowers can be included, but never white. If Christian, the deceased is buried in a cemetery. Hindu burials are typically cremated first, but are sometimes buried at sea. In more traditional areas, tribal traditions are still practiced.

French Oceania:

The wake is typically held in the home and the funeral in a church. Cremations must be outsourced to Australia or New Zealand by plane. In remote areas, traditions still remain such as setting the date by the practices of a magician, dancing, and burial in the family's yard.

Guam:

Funerals are very much like in the

mainland USA; services are most often held in a funeral home with burial in a cemetery.

Micronesia:

Female relatives wail and other mourners bring gifts such as fabrics, spices, and food. Burial follows in a church yard or family plot. After 4 days of keeping watch over the grave, the family burns the deceased's personal belongings.

New Zealand:

Most residents of European descent are Anglican, Presbyterian, or Catholic; there are also native Maori residents. Funerals are held only during the day on weekdays. Cremation and burial are both common, though cremation has become increasingly popular. Embalming is rare, and funerals most often take place within 36 hours of death. Roses are often planted in cemeteries, and they look like a garden when they are in bloom. In Maori burials, most traditional rites have fallen out of practice, but they use large coffins in order to bury the dead along with their possessions.

Palau:

People are mostly Catholic here and funerals tend to be elaborate and costly. Services most often take place in the church of the deceased, and burial follows in the church yard. Burial used to be done underneath the home of the deceased.

Papua New Guinea:

Many islands separate numerous tribes and have given rise to many traditions. Burial is most common, but in some places bodies are interred in the ocean or trees. Some tribes mummify their dead. In some tribes, the body is unearthed after a year and the bones are used as a reminder of the dead; some are worn as jewelry and the skull is used as a pot.

Solomon Islands:

Most islanders are converted to Christianity, but some still follow the traditional religion. A death is announced by blowing a conch shell. A mourning house (Balas) is built near where the corpse was and the mourning family stay there overnight. Funerals take place in a field where mourners dance and have a party. Corpses are often buried or placed in caves, but can also be put to sea. Individual graves are rare, and graveyards are seen as places to avoid. (See Island of Kundo: island of the dead)

Tonga:

The body is washed and rubbed with candelnut oil, then wrapped in barkcloth. The body is placed in the middle of the house and mourners come to sit around the bed and pray. They kiss the body before leaving. A drink (kava) is served. The following day the body is rewrapped and carried to the cemetery. There it is lowered and scattered with sand, then covered with a colorful cloth.

Middle East

Afghanistan:

The majority of people are Sunni Muslims; they follow typical Islamic burial practices.

Bahrain:

The people are Sunni or Shiite Muslims; they follow typical Islamic burial practices.

Cyprus:

Greek Cypriots are typically Orthodox Christians and Turk Cypriots are Muslims. The Greeks bury their dead within 24 hours with a white marble tombstone. The Muslims often exhume the bones of their deceased after a few years and place them in a community ossuary.

Iran:

Most people here are Shiite Muslims, but there are also some Christians, Baha'is, and Zoroastrians. The Shiites wail loudly in the street after a death and tear their hair and clothes. They bathe the body thrice in lotus water, camphor water, and then rose water and cover it in a white shroud. They also place a red stone with the names of saints in the mouth. The body is sometimes carried to the graveyard in a wooden coffin but it is rare. Cremation is considered terrible; only criminals are cremated. (See Beheshte Zahala cemetery in Kom)

Iraq:

There are predominantly Muslims here, both Sunni and Shiite, and also many Christians. The groups practice very typical rites according to their religions.

Israel:

Nearly the entire population here is Jewish. Upon death, the body is washed and rubbed with oils, sometimes with a mixture of wine and raw eggs, then dressed in a white shawl, cap, and socks. The body is to be buried as soon as possible; it is carried to the cemetery, and if there is a synagogue along the way they stop to pray.

Jordan:

Most people here are Sunni Muslims. Traditions here are very similar to those in Syria. Christian tombstones tend to be more variegated; some even feature pictures of the deceased.

Kuwait:

For the most part, citizens are Sunni Muslims. They follow typical Islamic burial rites.

Lebanon:

People here are either Maronite Christian or Sunni and Shiite Muslims; the religions live in separate districts. The Christian funeral is fairly typical: the body is bathed and dressed in black, put in a casket, carried by mourners to the cemetery and viewed one last time

before burial. Cemeteries are separated by religion as well.

Oman:

Most people here are Muslims and follow typical Islamic funeral traditions.

Pakistan:

Islam is the national religion, but there are also many Hindus, Parsees, and Christians. Muslims tie a white cloth around the deceased's thumb and cover the body with a green veil (chadal) decorated with roses, and burn agilawood. The death is announced from the minaret of a nearby mosque. The body is brought to the mosque for the funeral and then carried to the graveyard. Hindus cremate their dead and scatter the ashes, and Christians choose cremation or burial, while Parsees choose sky burials. Cemeteries are divided according to religion; graves can be large and elaborate, but are most often marked with a large rock and a stick in the ground.

Qatar:

Most people here are Sunni Muslim and follow typical Islamic funeral traditions.

Saudi Arabia:

People here are almost exclusively Wahhabi Muslim, a very devout sect. Upon a death, women wail and weep to alert the neighbors; mourners gather and one, a mugasru (male) or mugsra (female), washes the body, sprays it with perfume (kafu) and wraps it in a white shroud. The body is carried to the graveyard and buried under a mound or stones by men.

Syria:

There are many Sunni Muslims and Christians here, as well as the Arave who are like a combination of both. The dead are sprayed with alcohol-free perfume and carried on a stretcher to the graveyard; a coffin is sometimes used, but only the body is interred.

Turkey:

Most residents here are Sunni

Muslims, but there are also many Christians and Jews. The dead are washed three times with soap and clothed in white, then rubbed with peppermint and naphthalene and sprayed with rose perfume. The wake occurs in the home, and then the body is placed in a casket and carried to a mosque. The funeral takes place inside the mosque, and then proceeds to the graveyard. No gravemarkers are typically used, though later there will often be flowers planted to mark it. (See mount Nemrut graveyard, tomb of King Antiochus Epiphanes I: highest graveyard ever built)

United Arab Emirates:

Most people here are Sunni Muslims. Here, the family bathes and enshrouds the body if the death occurred at home, but hospitals do so in the case of a death there. The funeral procession is by car and occurs as soon as possible.

Yemen:

Most people here are Sunni or Shiite Muslims. They follow typical Islamic burial practices. The deceased are most often buried in a mosque cemetery, with simple graveposts in the sand to mark the grave.

Africa

Algeria:

Arabic is the official language, and most people are Muslim. In urban places, morticians assist in the funeral process. Muslim services take place in a mosque and are buried in the community graveyard; Christian burials occur on church grounds.

Angola:

Most people are native Bantus who follow the local religion. Bushmen in rural areas do not follow any particular funeral rites. Christian influence is strong in urban areas only. The Kongo tribe holds expensive funeral gatherings led by elders.

Benin:

Many native tribes still exist and have individual burial traditions. Upon a death, mourners wail loudly at the home of the deceased, then wash the body with hot water and wrap it in white cloth. Burial usually occurs in the yard of a hut. Several rehearsal funerals take place before the real ceremony, on a day prescribed by a fortune teller. The funeral is a happy occasion with a feast.

Botswana:

Funerals here are elaborate and costly; they often last up to a week long. Village cemeteries are becoming the norm, but in some places, men are buried near their cattle, women are buried in compounds, and children are buried under the house.

Burkina Faso:

Funeral dances go on for several days and involve the extended community; the ceremony is overseen by a member of the family. Men are buried in a western clearing and women are buried in the fields. Cemeteries are considered dangerous and to be avoided.

Cameroon:

Religion here is a mix of Islam, Christianity and native traditions. A death is marked by the particular beating of a drum or the wails of female mourners, alerting the village. The body is wrapped in black and blindfolded. Funerals last as long as a week and involve ceremonial masks and dance. Burial is done within 24 hours and is in a mound-shaped grave. The skull is removed after some time and reburied under the family home.

Cape Verde:

Most people here are Catholic. The funeral takes place at the church of the bereaved family and burial occurs in the church cemetery, typically nearby.

Central Africa:

Many tribes exist here and follow their native religions, but Christian sects are also common; some Muslims live in urban areas. Bod-

ies are buried as soon as possible and livestock are slaughtered to feed the mourners. The Zande tribe fear death particularly and see the death of children as particularly attributed to black magic.

Chad:

People are typically Muslim, but funeral traditions vary by tribe and the age and status of the deceased. Bodies are often buried wrapped in animal skins in places including the floor of the room in which they died, under a door, at an intersection, or in the hole of a tree. Desert nomads bury bodies in the sand with no marker.

Congo:

Religion is strictly controlled by the government, but can include a number of Christian sects, most dominantly Catholic. A funeral service is typically held in the family home, with burial in a cemetery. Bodies are buried on the night of death, with all funerary ceremony taking place in the middle of the night; the people believe this is the time for the world of death. Cemeteries are considered to be dangerous. The Azande tribe wraps the dead in a cloth of bark and form two rings around the body, the inner ring of women, and the outer ring of men. Their burials occur just hours after death, and always during the day.

Djibouti:

Most people are Sunni Muslims. Funerals here are typically expensive and elaborate.

Egypt:

Residents are almost exclusively Sunni Muslim. Typical Muslim rites are followed. In Necropolis, mausolea are sometimes equipped with plumbing, kitchens, and living areas; the doors are sealed with soil after burial. Desert burials are marked with a round stone. Coptic Christians have separate elaborate burial traditions.

(See St. Katharina Greek Orthodox Church, Mt. Sinai - piles of priest bones?)

(See Necropolis, near Muqattam Dune)

Equatorial Guinea:

Most burials here follow the Roman Catholic tradition.

Eritrea:

Funerals are typically held in the church or mosque of the deceased. Women do not participate in the burial at the graveyard.

Ethiopia:

The deceased is washed and wrapped in cloth and coconut leaves. The mourning procession wails as they carry the body to the graveyard. Burial occurs the afternoon or following morning of the death. In the Oromo tribe, bodies are buried among acacia trees and often only prominent community members' graves are marked with stone gravemarkers. The Dolze people build a bamboo hut near the home in which to bury the dead.

Gabon:

Catholicism, mixed with the native traditions, is most common.

Gambia:

Animistic beliefs are still common in rural areas where mourners sing and dance. Some bodies are buried inside of hollow baobab trees.

Ghana:

Half the population is Christian and the rest are Muslim or followers of traditional beliefs. Almost all burials are in the ground and cremation is very unusual. Burial typically occurs before the funeral, which is held on a decided day weeks, months, or even years later. Mourners sing and circle the village on the day of the funeral. Family members wear orange mud on their foreheads and shoulders. Others wear red and blue. Widows must wear palm leaves on their elbows. Close family shave their heads. Coastal tribes are known for their elaborate coffins shaped in fantastic representations of animals and other things.

Guinea:

Fifteen tribes make up the population; about three quarters of the population is Muslim, the rest

are Christian or follow traditional beliefs. The burial almost always occurs on the day of death and on the family's property.

Ivory Coast (Cote d'Ivoire):

Many people are members of the Harris Church, which combines Christian and regional traditions; others follow tribal traditions. The wake typically takes place in the home and lasts for several days. The funeral takes place on the eighth day after death, typically in a church. Burial is done in cemeteries typically on the outskirts of the town.

Kenya:

Tribal religions are common, but Christianity is common inland and Islam is dominant in coastal regions. Bodies are disposed of as quickly as possible to avoid decay. Some tribes simply place the deceased in the wild or in a river and let nature take course. Some tribes sing and dance at the funeral. In urban areas, Christians are wealthy and build stone monuments, while the poor simply bury the dead in the corner of the home.

Liberia:

Most residents still follow tribal religious practices, but there are some Christians in the capital city. Tribal perspectives on death tend to view it as frightening and there are many rituals to drive away spirits. Bodies are buried at the earliest time possible.

Libya:

Sunni Islam is the dominant religion. Upon death, the body is washed by family with soap and water and wrapped in white cloth. Funerals are held at home or in a mosque. Relatives carry the coffin to the graveyard. Graves are mounds or are marked with a gravepost; tiles or flat stones are placed over the grave. The Bedouin residents often have a separate burial place, though their rites are very similar. Their graves tend to be unmarked.

Madagascar:

Eighteen tribes make up the majority of the population and hold individual beliefs, but there are many Christians and Muslims in urban areas. Funerals tend to be large and expensive, with many guests eating, drinking, and singing at the cemetery. Burial is done in family mausolea, or stone rooms, where the white silk-wrapped body is placed. The room is visited once a year on a certain day (famadiana), when the bodies are rewrapped by family members.
(See Sakalaba tribe cemetery, Molondava)
(How can the dead be transported long distances?)

Mali:

Here, the people are typically Muslim or follow their tribal traditions. The death of infants is not marked with a funeral. Adult funerals are held in the home and last four days, but burial occurs on the day of death. Graves are simple mounds covered by branches or stones, sometimes in graveyards and sometimes simply abandoned. The Dogon tribe is known for their colorful funerary mask dances.

Mauritania:

People here are nomads unless they live in the capital city. Every community has a cemetery. The deceased are washed and wrapped in a shroud by a member of their own generation and buried the day of death or the following morning. The funeral involves the digging of a shallow grave by the family; it is left unmarked.

Morocco:

Most people follow Sunni Islam. Here, the dead are placed in a boat-shaped coffin for the funeral which takes place at home or in a mosque. Burial is performed for free in a community cemetery; most graves are piles of stone and mortar.

Mozambique:

Most people here follow native religions, but urban areas contain some Catholics and Muslims. Burial here is done as soon as possible

and with many prayers to purify the dead. The funeral is attended by the whole tribe.

Namibia:

Most people here are native peoples who follow their tribal religions. Burial practices vary but usually occur on the day of death. There are many taboos here about death, which is associated with evil spirits. Bodies are typically buried in a graveyard on the outskirts of the village, which is avoided for fear of ghosts and spirits.

Nigeria:

In the north, most people are Muslim, and in the South, mostly Christian, but there are many who follow tribal religions as well. Members of major religions follow typical rites. Tribal rites often involve covering the body or the mourners' bodies with red dye (kam), white powder, or ashes. In some tribes, funerals are only held for the elderly. Cremation can only be performed with special permission. In cities, there are often separate cemeteries for Europeans. The Annang tribes shave the body of the deceased, wash and reclothe it; it is then placed in a sitting position on a bench between two trees that were planted especially for the funerary rites of the village. A sacrifice of several cattle is performed before the body before it is carried to the graveyard.

People's Congo:

Funeral practices in cities have become modernized, but rural areas still have many traditional rites. White flowers are often brought to the funeral, which involves an exorcism in many cases. Some tribes use wooden caskets that are shaped like the human body. Several villages often share one cemetery.

Rwanda:

Very similar to above.

Senegal:

The dominant religion is Islam, with the influence of native beliefs. Funeral services are per-

formed by an imam at the home of the family. Burial is performed as soon as possible. There are separate cemeteries for Muslims and Christians.

Sierra Leone:

People here follow Sunni Islam or their native religion. The Mende tribe believes that death occurs at least twice in a person's life.

Somalia:

Here most people are Sunni Muslim. They follow traditional Islamic burial practices.

South Africa:

Many people here are Christian. Deaths are typically handled by private mortuaries, but some funerals are held at the church of the deceased. Burial typically occurs two or three days after death. South Africa has the highest cremation rate in Africa.

Sudan:

Many people here are Coptic Christians or Sunni Muslim; there are also many who still follow tribal religions. The dead are washed by a member of their gender and the body orifices are filled with perfumed cotton; the body is wrapped in white. Burial takes place in a graveyard near the home on the day of death, with the funeral being held that evening. Graves are dug in the north-south direction and bodies are buried with the head to the south. Graves are surrounded by thorned branches to deter animals.

Swaziland:

Most people here are Protestant. Burial customs vary according to one's place in the social fabric; a herder might be buried in an animal enclosure, while others would be buried in their home compound. Most tribes have a certain location outside the village where the dead are buried. The Mswati royal family visits their ancestral graves on Mount Umjinba every year.

Tanzania:

Most people here are Bantu, but

there are other tribes as well; there is a mix of Christians, Muslims, and followers of their native religions. Funerals can be held in the home, church, or a mosque. Funerals are almost always burials, but cremation is available for foreigners. The Maasai have no elaborate funerary rites; they view the body as harmful and it is disposed of as quickly and efficiently as possible.

Togo:

Here, most people are Catholics or followers of their native religion. Funerals tend to be elaborate and involve feasts, drumming, and dancing for several nights.

Tunisia:

The majority of citizens are Muslim. Funeral practices are typical of Islamic tradition. Tombstones are often limestone rectangles with no markings.

(See Central Cemetery of Tunis: bodies from the General Hospital are brought to the cemetery through tunnels)

Uganda:

Most people here have converted to Christianity. The body is washed and enshrouded in white; then a magician is called to pray the spirit will leave. The body is typically buried within a day, and often near a banana grove. Cremation was common for Indian citizens in the past, but when these people lost political control, this practice mostly ceased; native people believe that burning the body destroys the soul.

Zambia:

Most people here live in their native tribes, but in urban areas there are many Christians, Muslims, and Hindus. Most funerals are burials in the ground, but there are cremations for the Hindus. The Lozi tribe bends their dead into a fetal position and remove the body from the home through a hole cut especially for this purpose; then it is carried to the graveyard. Men are buried facing east, and women west. The hut of the deceased is then pulled down.

Zimbabwe:

Here, most natives still follow their traditional religion, but the minority British immigrants are Christians. Most tribes do not have elaborate funeral rituals and their graves are often unmarked.

Europe

Albania:

Formerly predominantly Muslim, Albanians became the first declared non-religious country in 1996. Funerals tend to be very simple secular affairs in the home or another gathering place. In rural areas, the traditional wailing and tearing of clothes may still be practiced but it is less common.

Andorra:

Most people here are Roman Catholic and follow typical funerary traditions of their religion, with a funeral in a church. There is no crematorium in the country.

Austria:

The majority of people are Catholic, but there are also a number of Jews and Christians of other sects. Every death here must be investigated by a coroner. The funeral is held three days to one week after death in a chapel. There is a maximum funeral cost imposed by the government. Coffins are typically buried in graveyards, but cremation is increasingly popular, with cineraria being typical rather than burial or scattering of the ashes. (Funeral museum in Vienna, Gold-eggasse Avenue)

Belarus:

Byelorussians follow Russian Orthodox Christianity or Catholicism. Funeral rites include putting salt, coins, and a pipe in the coffin and burial being on the third day after death.

Belgium:

Most of the people are Catholics. The body is washed and dressed in

clean clothes but typically not embalmed; burial is the norm unless cremation was the express wish of the deceased or if the death was from contagious disease. Evergreen wreaths are typically placed in the grave.

Bosnia and Herzegovina:

People here are typically either Orthodox Christians or Muslims. The people follow typical practices of their respective religions.

Bulgaria:

Religious influence declined here after the rise of communism in the 1940s, but most people associate with either Orthodox Christianity or Islam. The Gypsies practice their own folk traditions, influenced by both religions and pre-Christian customs. Typical funerals are non-religious and take place at a funeral home or in the cemetery, though it may take place in a church if the family requests it.

Croatia:

The majority of people here are Catholics and follow typical funerary practices of their faith.

Czech Republic:

Most people here were Catholic before the communist takeover in 1946, but now the influence of religion has been lessened. The family typically holds a wake and then a funeral in the mortuary of the public cemetery. Burial and cremation, with ashes stored in a niche, are both common. Unknown people and those without families are usually buried in mass graves. In rural areas, a grave can be rented for 5 years and then the contract can be extended for more money. Cemetery mortuaries are responsible for posting a death notice on the town bulletin board.

Denmark:

Lutheran Gospel Church is the national religion here. Funerary services are handled completely by a mortuary, with the family present for the encoffining service. Men are buried in a suit and women are usually buried in their wedding dress. The funeral occurs on

the day after burial or cremation, in a chapel, Labor Union Hall, or City Hall. Cremation has become the majority choice, particularly in cities.

(See Ashisutan Cemetery, Copenhagen: trees)

Estonia:

Many people here are Lutheran, but religious influence was lessened under Soviet rule. Funerals are typically non-religious in nature.

Finland:

Most people here are Lutherans. The wake is often held in the home, with the funeral in a church on the following day. Burial and cremation, with subsequent burial of the ashes, are both common. On Christmas Eve, candles are lit near many graves.

France:

Catholicism is the most common religion, but secularization has decreased the influence of religion. The wake is held at home, with a boat-shaped coffin surrounded by curtains (black for an adult and white for a child; embalming is not common. The funeral is held at a church or cemetery morgue. Burial cannot occur until at least 24 hours after death. Graves often expire after a 5-year lease, and this is not renewed in the majority of cases; the remains are simply exhumed and buried together elsewhere.

The Gypsies are a minority group in France; their wake lasts three days and nights. All the belongings of the deceased are burned before burial.

(See Pompes Funebres Generales SA: company with exclusive rights to French funeral business)

Germany:

Though the influence of religion has significantly declined, many people identify as Protestant or Catholic. A wake can be held in the home, with a boat-shaped coffin, but often the body is taken directly to the morgue and refrigerated. Funerals are held in the hall at the cemetery or in a church. Funeral

processions with black robes and the ringing of bells are still common outside of cities. Public and church cemeteries are planted with white birch or evergreen trees to appear forest-like. Graves are typically mound-shaped and planted with flowers.

Georgia:

Native Georgians are typically Orthodox Christians or Muslims. Their funeral rites are typical of the respective religions.

Great Britain:

Here, mortuaries handle everything from the preparation of the body to burial; embalming is not common. The body is typically transported by hearse. Coffins are typically rectangular and come in a plethora of varieties. The vast majority of people are cremated and their ashes are scattered. A wake is only common among the Irish. Many British tombstones have humorous inscriptions.

Greece:

Almost all people are followers of the Greek Orthodox Church. The body is washed and wrapped in a white cloth (savanon) and kept in the home for 24 hours. The funeral takes place in a church with flowers, a band is placed across the forehead, and an icon is placed on the chest. An elaborate ceremony is led by the priest, often with a choir, and ends with the lighting of candles around the body. Burial is typical, and bones may be unearthed and moved three years later.

Hungary:

Older generations here are predominantly Catholic, but younger people are not very religious. In urban areas, funerals are carried out by a funeral home. In rural areas, church bells are rung and the service takes place in the chapel; windows are opened but doors are closed, to encourage the spirit to leave. Caskets are often brightly colored, except in the case of the very old, whose caskets are black. Unmarried women are typically buried in a wedding dress. The

casket is carried head first and led by men with spears; mourners follow a different route home than the one they took to the graveyard. Cremation is also common, and ashes are placed in niches.

Iceland:

People here are most often Lutheran, though other sects exist. A cemetery is called a Kircher Gardor (church garden). Cremation is most common here, and funerals are often held in the church.

Ireland:

Most people here are Catholic. The wake is held in the home and can last for several days. Funerals typically take place in the home, but may be in a church. The body is brought to the graveyard in a hearse, followed by other cars in procession.

Italy:

Catholicism is the dominant religion, though it is observed in varying degrees. The family washes the body and covers it in a cloth for the wake. Funeral mass is held in the church; then the body is transported in hearse covered with flowers to a public or private cemetery. Cremation is very unusual. Many graves are on a lease system and bones are often exhumed after thirty years and placed in a cinerarium.

(See Santa Maria Church, Beneto, Rome: catacombs)

Latvia:

Religion was stifled under Soviet rule, but there are still many Lutherans, Catholics, and Orthodox Christians here. Funerals are typically held in the cemetery and are handled by a funeral director (Apbedisanas Birojs).

Lichtenstein:

Catholics are the vast majority here; most funerals are held in the church and the body is buried. There is no crematorium in the country.

Lithuania:

People here are most often Catho-

lic or Russian Orthodox; people follow typical rites of their respective faiths.

(See Siauliai Hill of Crosses: memorial for people deported to Siberia. Repeatedly bulldozed by Soviets)

Luxembourg:

Most people here are Catholic and funerals are held in the church. Public cemeteries are typically located next to churches. There is one crematorium in the country, operated by the Pompes Funerabres Erasmy at Hamm.

Macedonia:

Most people here are Orthodox Christians, but there are also a significant number of Muslims. People practice fairly typical funeral rites according to their faiths.

Malta:

Most people here are Catholics. When a family member dies, the mourners stay in the house for three days without cooking, light, or heat. Deaths are announced with notices on street corners and in the newspaper. Funerals are typically held in a church. Bodies are buried in public cemeteries on the fringes of towns, typically divided by religion.

Moldova:

Most people here are Russian Orthodox Christians. Young unmarried women here are buried in a wedding dress. A silver coin is often buried with the body. When the body is placed in the grave, a priest pours a bottle of wine over it in the shape of a cross.

Monaco:

The national religion is Catholicism but people come here from all over the world. Funerals are typically held in a church and the arrangements are handled by a private mortuary.

Netherlands:

Most people here are Catholic or Protestant, but there are many non-religious citizens as well.

Funeral arrangements are handled by the family's church or by neighbors, and ceremonies can be held at the church, mortuary, or grave site. There are fewer than ten crematoria in the Netherlands; ashes are often placed in a grave or ossuary.

Norway:

Deaths here must be reported to a doctor and the police, and then arrangements are handled by a mortuary. Burial or cremation has to occur within eight days. In the winter, an electric thawing machine is needed to dig the grave. Cremation has become the norm in recent times.

Poland:

The vast majority of the population here are Catholics. A floral wreath is displayed outside the home to announce a death. Mortuaries assist in funeral arrangements. The casket is displayed at home for three days, and then moved to the cemetery. Funerals are held in the cemetery chapel.

Portugal:

Here, the majority of people are Catholic. The wake occurs in the home, and everything hanging on the wall is turned upside-down. The funeral is in a church. Embalming is not common. Burial is the norm, though cremation is available. The body is typically not buried until a couple of days after death. Cemeteries near cities have become overcrowded and bodies are typically exhumed after five years and the bones are placed in niches or in shared graves with others.

Romania:

People here were typically Orthodox Christians before the influence of socialism, but the power of religion here has declined. Funeral homes exist in urban areas. The body is washed and dressed in its best clothes, then icons and candles are placed in its hands for the wake. Funerals are often held at home, though a priest and cantor come from the church.

Russia:

Many people here are Russian Orthodox, Muslim, or are nonreligious. The district office (Pokhoron-noe Byuro) assists families with funeral preparations. In cities, funerals take place in a funeral home and cremation is very common due to restricted space. At the funeral, mourners kiss the deceased.

Muslim Russians typically reside in outlying districts, and they practice typical Islamic funeral rites

In Siberia, many tribes practice native shamanistic and animistic traditions. The Nivf people light a fire to memorialize the dead and stay awake for days without sleep, three days for a male and 4 days for a female. They carry the body to a crematorium after the waiting period and stop along the way the same number of times as days waited. A dog is cremated with the body as a sacrifice. The remains are buried or placed in a cave along with the possessions of the deceased. The grave is marked with a wooden statue representing the dead.

(See: embalming of Lenin)

San Marino:

People here are Catholic; funerals are held in the church.

Slovak Republic:

People here are mostly Catholic and follow typical practices.

Slovenia:

People here are mostly Catholic and follow typical practices.

Spain:

The majority of people identify as Catholic, with varying degrees of devotedness. Burial must occur within 48 hours of death. Funeral and mass are often held in the mortuary. Cremation is becoming more popular.

Sweden:

Lutheran Gospel Church is the national religion here. The funeral occurs most often in a church; the family sits on the right side and others sit on the left. A hearse

leads the procession to the cemetery. Cremation is very common in urban and remote areas, while burial is still typical in the countryside.

(See Subranka Public Cemetery crematorium. Also, Ensukado Public Cemetery crematorium by Gunal Aspurando)

Switzerland:

People here are often Catholic or Protestant. Burial and cremation are equally common. A wake is typically not held, and the body is simply viewed in the hospital or home before being prepared for burial. The funeral occurs in the family's church. 48 hours must elapse between death and burial.

Ukraine:

Most people here are Orthodox Christians. A white sheet is hung outside to announce a death. An unmarried young woman is typically buried in a wedding dress.

Yugoslavia:

Orthodox Christianity and Islam are both common here. Most burials are traditional, but about a quarter of the population chooses cremation. A death is announced with a picture of the deceased on the community bulletin board in a black frame. The funeral usually takes place on the day after death. It is believed that if one dies with the eyes open, the deceased will become a vampire.

North and Central America

Antigua and Barbuda:

Anglicanism, mixed with Rastafarian beliefs, is typical here. Funeral arrangements are handled by a mortuary. A wake and funeral occur in the church, and then the body is typically buried in a cemetery.

Aruba:

People of many faiths here, includ-

ing all major religions, follow their own traditions.

Bahamas:

Most people here are Christians of various sects, and they follow typical traditions. (See custom of Obeah)

Barbados:

People here are typically Christians of various types, but there are also Muslims, Rastafarians, Hindus, and Jews. People follow the traditions of the respective religions.

Belize:

The Christian majority here prefer burial. Immigrants from India are typically Hindu and prefer cremation.

Bermuda:

Most people here are Christians of various sects, and they follow typical traditions.

Canada:

People here are typically Protestant or Catholic. The preferences vary by area, but wakes and funerals typically are held in a church or mortuary/funeral home. Graveyards are typically not divided by religion anymore. In areas where the ground is frozen for months, corpses may be stored in a chamber until a thaw. Cremation is popular for Buddhists and the non-religious, as well as some Protestants. The Inuit typically build a cairn over the body due the difficulty of burial. The Montagnais-Naskapi people wrap their dead in birchbark along with their personal belongings; they store their dead on a scaffold through winter for burial in the thaw.

Costa Rica:

Catholicism is the dominant religion. Most people follow standard Catholic burial practices. There is no custom of cremation here.

Cuba:

Catholicism is most commonly practiced here, but the influence of Santeria is seen as well. Funerary logistics are handled by a public

mortuary. Funerals take place in the mortuary or church and burial is in a cemetery.

(See Christobal Colon Memorial Park Cemetery)

Dominican Republic:

Most people here are Catholic and follow typical funerary traditions.

El Salvador:

The national religion is Catholicism. The body must be buried within 24 hours of death. Graves are typically sold or put on a 7-year lease. Tombstones here tend to be very elaborate and costly.

Grenada:

People here follow various sects of Christianity and practice customs typical of their faith.

Guatemala:

Catholicism is the national religion, but some native people still follow Mayan customs. The wake is announced by the ringing of a bell: three times for a man and once for a woman. Women wail around the body and candles are lit. The following morning, a marimba band leads the funeral procession to the cemetery. A singer is hired to return to the grave every five days to soothe the spirit for a month.

Haiti:

The national religion is Catholicism, but there are also many people here who practice Voodoo. A Voodoo priest performs a secret ceremony of death and rebirth before burial. Catholics follow typical practices.

Honduras:

The majority of people here are Catholics. Funeral logistics are handled by a mortuary, and funerals take place there. The government provides coffins to families who cannot afford them. Graves are most often marked with a simple cross.

Jamaica:

Various sects of Christianity practice here, and follow typical customs. A festive wake is held after

burial in order to appease the spirit and attempt to pacify it.

Mexico:

People here are mostly Catholic. The wake is typically held in a mortuary chapel, and the funeral service is performed there as well or in the graveyard. Burial or cremation is performed within 24 hours of death, but burial is most common. Graves are typically rented for seven years.

(See pantheon of Guana Juato aka The House of the Dead: 200 mummified bodies)

Nicaragua:

Most people here are Catholics who follow typical funerary practices. The Sumu people have shamans at the funeral to drive evil spirits away.

Panama:

Most people here are Catholic. The wake is typically held at the mortuary, and the funeral mass at the church. Only male mourners follow afterwards to the cemetery. The procession of cars is covered with flowers. Burials in the ground are often removed after a year and a half and the bones are placed in a mausoleum. The Kuna tribe has a practice called Ceremony of the Smoke of Coconuts Beans and Pepper Seeds, where the body is washed and put in a hammock with the singing of songs. The next day, the body is taken by canoe to an island far from the towns where all the dead are buried.

Trinidad and Tobago:

Christian, Muslim, and Hindu practices are all common here.

United States of America:

Most funeral homes are run by people with a bachelor's degree in mortuary science from a college of mortuary science and carry a technical license from the Department of Health. The funeral home is the first place people contact upon a death; they pick up the body and embalm it. The wake is held in the funeral home and attended by a broad range of family and friends. The funeral can be held there as

well, or in a church, and is typically attended by closer family and mourners.

(See Forest Lawn Memorial Park by Hubert Eaton: Los Angeles, CA) Scattering of ashes from airplanes has been legal since 1965, as long as it is performed at least three miles from shore; thousands of these are performed yearly.

South America

Argentina:

Most people here are Catholics. The wake is held in the home on the night of the death and then transported to the cemetery chapel. The funeral takes place in the chapel and then goes to the cemetery by hearse or flower car. Cremation is rare, but becoming more popular.

(See columbarium at Chacarita Cemetery)

Native tribes have different traditions. The Tehuelche people of Patagonia place their dead in a cairn atop a hill. The Maka Indians believe death is caused by ill will towards the deceased and they stone the body in belief that the harm is afflicted on the ill-wisher.

Bolivia

Most people here are Catholic. They typically hold the funeral in the home and then have a memorial service in a church after the burial.

Brazil

People here are typically Catholic, but many Japanese immigrants have brought Buddhism to Brazil, and they typically have a funeral in the home followed by burial. Catholics have a wake in the home and then a large funeral procession to the burial. There is a memorial mass held a week after burial. Bodies are put on a concrete shelf for about five years, and then exhumed and the bones are moved into a columbarium.

(See largest cemetery in Brazil: San Juan Baptista Cemetery, sur-

rounded by mountains)

Chile

Most people here are Catholic and follow typical traditions; the funeral is often held in the home and then mourners bring the deceased to the burial ground.

Colombia

People here are predominantly Catholic and follow typical practices. There is no tradition of cremation here. The Cubeo people bury their dead in the center of the home with his or her belongings.

Ecuador

Catholicism is the dominant religion here. Mortuaries handle services in urban areas, but in rural places the family buys a coffin (white for a child, red or orange for an adult) and cross, washed the deceased, wraps them in a white cloth, and places them in the coffin with flowers and rosemary. Cemeteries are divided with a wall to separate people of different races.

Guyana

Protestantism is most common, but there are also many Hindus here. Typical practices are followed for these groups, so cremation is common.

Paraguay

Typical Catholic burial practices are prevalent here. Cremation is becoming more common. The rich tend to be buried in mausolea while common graves are smaller niches that are often exhumed after a few years.

Peru

Most people here are Catholics. They hold a wake in the home and then a brief funeral at the grave before burial. In rural areas, women still wail loudly at the wake; people also wear derby hats as charms which they believe protect them from spirits.

Suriname

There are people here of almost every major religion, and each

group keeps their own traditional customs.

Uruguay

Though predominantly Catholic, Uruguay is very secular. There is usually a wake in the home followed by a ceremony at the gravesite. Devout Catholics will have a memorial mass within a week of burial. Burial is often in the ground or in niches and pantheons.

Venezuela

Most people here are Catholic, but in the inner areas of the country there are many native people. The Yanomami tribe cremates their dead immediately and then grinds their bones into a plantain soup which their family eats. Cremation is restricted here by law due to Catholic

II. Terminology

algor mortis

the cooling of the body that follows death.

autolysis

the breakdown of plant or animal tissue by the action of enzymes contained in the tissue affected; self-digestion.

black putrefaction

in untended death, the stage of decomposition that occurs 10-20 days after death. The bloated body collapses, leaving a flattened body whose flesh has a creamy consistency. The exposed parts of the body are black in color and there is a very strong smell of decay. A large volume of body fluids drain from the body at this stage and seep into the surrounding soil. Other insects and mites feed on this material. The insects consume the bulk of the flesh and the body temperature increases with their activity.

butyric stage

in untended death, the stage of decomposition that occurs 20-50 days after death. All the remaining flesh is removed over this period and the body dries out. It has a cheesy smell, caused by butyric acid, and this smell attracts a new suite of corpse organisms. The surface of the body that is in contact with the ground becomes covered with mold as the body ferments.

cemetery

a spatially defined area where the remains of deceased people are buried or are otherwise interred.

from Greek: sleeping place

cenotaph

an empty tomb or a monument erected in honor of a person or group of people whose remains are elsewhere. From Greek: kenotaphion - kenos "empty" and taphos "tomb"

charnel house

vault or building where human skeletal remains are stored

churchyard

a patch of land adjoining or surrounding a church which is usually owned by the relevant church or local parish itself

cinerarium

a place for keeping the ashes of a cremated body.

columbarium

a place for the respectful and usually public storage of cinerary urns which hold a deceased's cremated remains.

from Latin columba: "dove" originally referring to compartmentalized housing for doves and pigeons called a dovecote

cremation

the process of reducing the remains of the dead through ritual burning until they are reduced to ash.

cremation garden

a designated place where cremated remains can be buried or scattered.

crematorium

a facility which houses cremator units, which are also known as a crematory, cremator or retort. from Latin cremare: "to burn, consume by fire" also used for the dead

crypt

a subterranean chamber or vault, especially one beneath the main floor of a church, used as a burial place, a location for secret meetings, etc.

desiccation

the process of removing moisture and thoroughly drying up.

dry decay

In untended death, the stage of decomposition that occurs 50 days- 1 year after death. The body is now dry and decays very slowly. Eventually all the hair disappears leaving the bones only.

embalming

to treat (a dead body) so as to preserve it, as with chemicals, drugs, or balsams.

funeral home

also funeral parlor or mortuary: a business that provides burial and funeral services for the deceased and their families.

from Latin *funere*: “funeral, death, corpse,” perhaps ultimately from Proto-Indo-European *dheu*: “to die”

grave

an excavation made in the earth in which to bury a dead body; any place of interment; a tomb or sepulcher; any place that becomes the receptacle of what is dead, lost, or past.

graveyard

any place set aside for long-term burial of the dead, with or without monuments such as headstones.

from Old English *graf*: “pit” and *yairden*: “garden, open place”

Liquefaction

the act or process of liquefying or making liquid.

livor mortis

also postmortem lividity; a purplish discoloration of the skin following death, caused by the pooling of blood due to gravity.

mausoleum

a free-standing building constructed as a monument for the interment space or burial chamber of a deceased person(s)

from Greek *Mausoleîon*: “the tomb of Mausolus, king of Caria”

memorial

something designed to preserve the memory of a person, event, etc., as a monument or a holiday; an object or place which serves as a focus for memory of something, usually a person or an event. Can include sculptures, statues or fountains, and parks.

from Latin *memorialis*: “of or belonging to memory”

morgue

a place in which bodies are kept, especially the bodies of victims of violence or accidents, pending

identification or burial. from French *morgue*: “to look at solemnly, to defy”

mortuary

(n.) funeral home.

(adj.) of or pertaining to death.

ossuary

a place or receptacle for the bones of the dead. A body is first buried in a temporary grave, then after some years the skeletal remains are removed and placed in an ossuary. from Late Latin *os*: “bone”

promession

a method of disposing of a corpse through its freezing | liquid air, shattering, and subsequent burial.

pesomation

A method of disposing of a corpse through its reduction by water and alkaline hydrolysis.

retort

a machine used for cremation.

rigor mortis

stiffening of the muscles that occurs within a few hours of death and lasts several days; is due to chemical changes in the musculature

skelontonization

one of the final stages of decomposition, in which the last traces of soft tissue have decayed or dried to reveal the skeleton.

somatic death

the discontinuance of cardiac activity and respiration, and eventual death of all body cells from lack of oxygen

tomb

a small building for the remains of the dead, with walls, a roof, and, if it is to be used for more than one corpse, a door. It may be partly or wholly in the ground except for its entrance. From Latin *tumba*, Ancient Greek: “a sepulchral mound, tomb, grave”

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